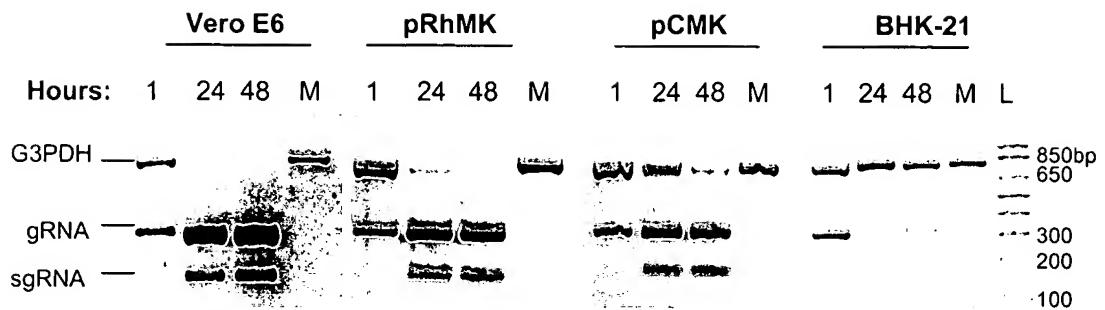


FIG. 1

A.



B.

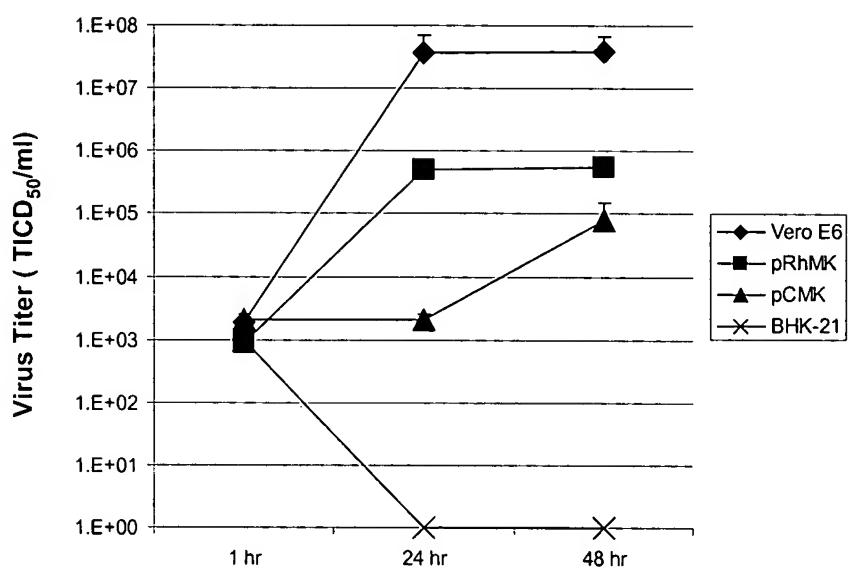


FIG. 2.

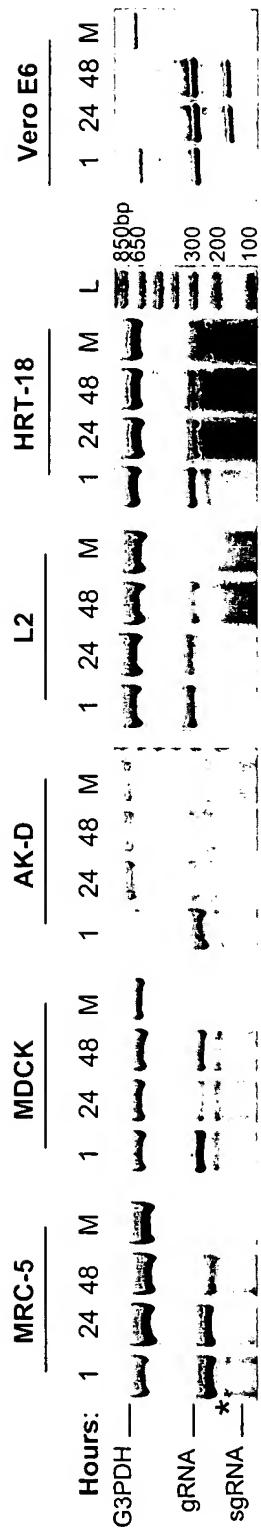


FIG. 3.

A.



B.

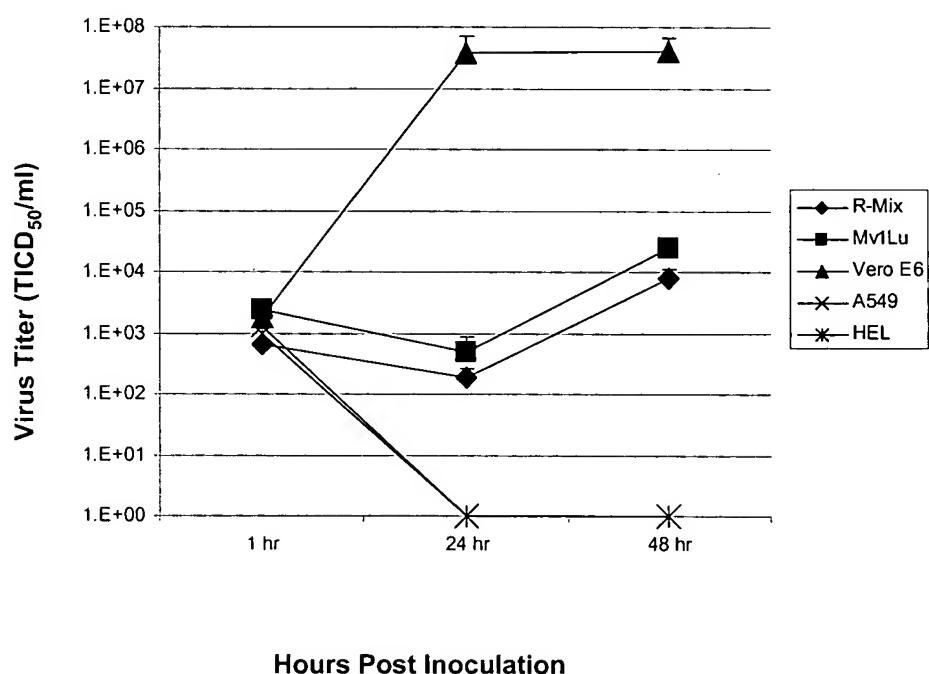
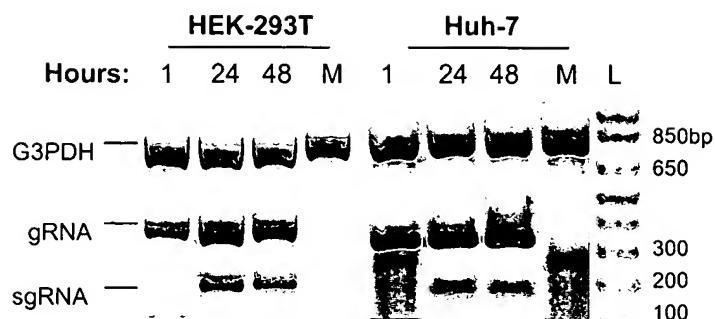


FIG. 4.

A.



B.

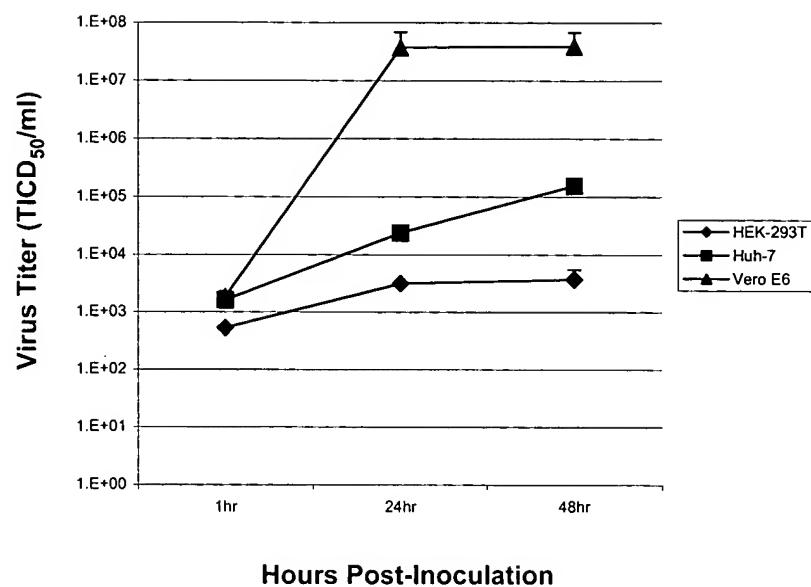
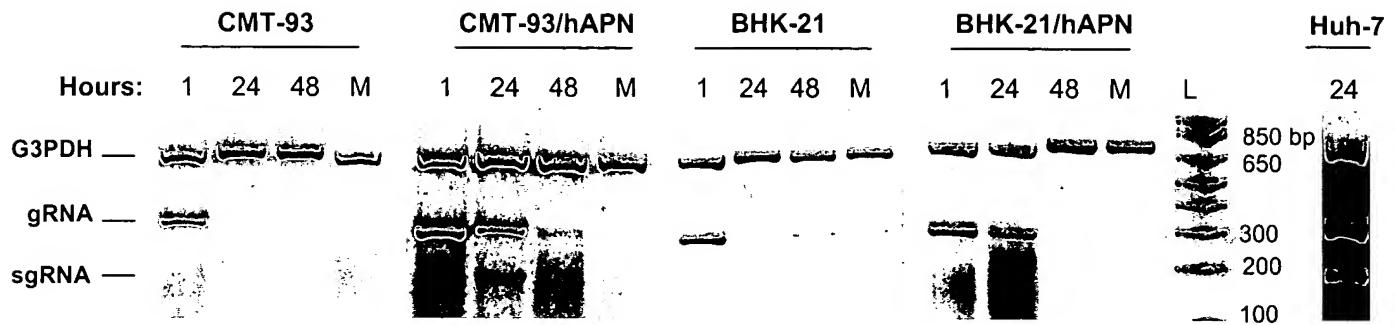


FIG. 5.

A.



B.

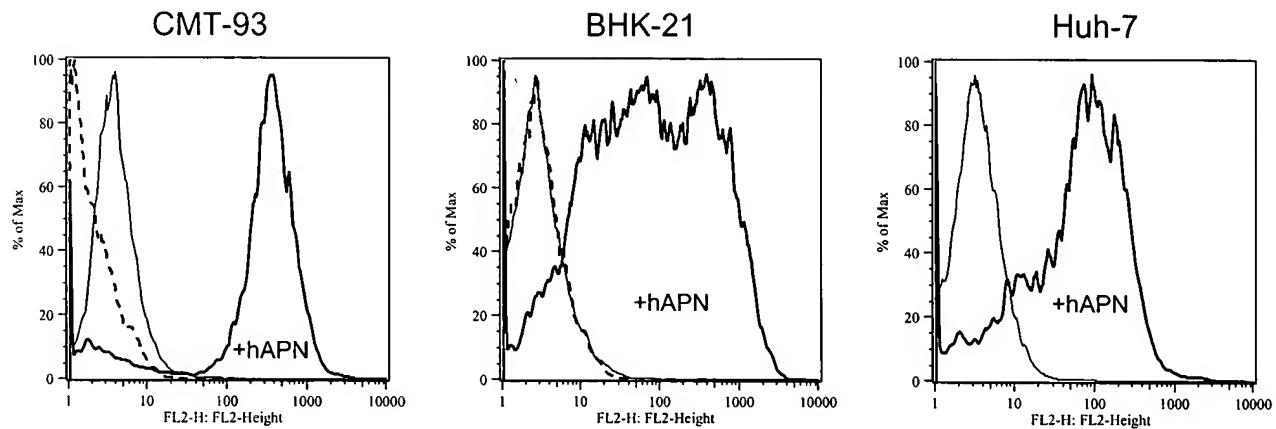


FIG. 6.

FIGURE 7A

1 atatttaggtt tttacctacc caggaaaagc caaccaacacct cgatcttgc tagatctgtt  
61 ctctaaacga actttaaaat ctgtgttagct gtcgctcgcc tgcatgccta gtgcacccac  
121 gcagtataaa caataataaa tttactgtc gtgacaaga aacgagtaac tctgtccctt  
181 tctgcagact gcttacgggtt tcgtccgtgt tgcatgtcgat catcagcata cctaggtttc  
241 gtccgggtgt gaccgaaaagg taagatggag agccttggcc ttgggtgtcaa cgagaaaaaca  
301 cacgtccaac tcagttgcc tgccttcag gtttagagacg tgcttagtgcg tggcttcggg  
361 gactctgtgg aagaggccct atcggaggca cgtgaacacc tcaaaaatgg cacttgtgtt  
421 ctagtagagc tggaaaaaagg cgtactgccc cagcttgaac agccctatgt gttcattaaa  
481 cgttctgtatg ccttaagcac caatcacggc cacaaggtcg ttgagctgtt tgcatgaaatg  
541 gacggcattc agtacggctcg tagcggtata acactggag tactctgtcc acatgtgggc  
601 gaaacccaa ttgcataccg caatgttctt cttcgtaaga acgtaataa gggagccggg  
661 ggtcatagct atggcatcga tctaaagtct tatgacttag gtgacgagct tggcactgtat  
721 cccattgaag attatgaaca aaacttggaa actaagcatg gcagtggtgc actccgtgaa  
781 ctcactctgt agtcaatgg aggtgcagtc actcgctatg tcgacaacaa tttctgtggc  
841 ccagatgggt accctcttga ttgcataaaa gattttctcg cacgcggggg caagtcaatg  
901 tgcactctt ccgaacaact tgattacatc gagtcgaaga gaggtgtcta ctgctgccc  
961 gaccatgagc atgaaattgc ctggttcaact gagcgctctg ataagagcta cgagcaccag  
1021 acacccttcg aaattaagag tgccaagaaa tttgacactt tcaaaaggaa atgccccaaag  
1081 tttgtgttcc ctcttaactc aaaagtcaaa gtcattcaac cacgtgttga aaagaaaaaaag  
1141 actgagggtt tcatggggcg tatacgctct gtgtaccctgt ttgcacatctcc acaggagtgt  
1201 aacaatatgc acttgtctac cttgtatggaa ttaatcatt gcgtatggaaatgttcatggcag  
1261 acgtgcact ttctgaaaggc cacttgcgtt cattgtggca ctgaaaattt agttattgaa  
1321 ggacctacta catgtgggtt cctacactt aatgtctgttag tgaaaatggcc atgtcctggc  
1381 tgtcaagacc cagagatgg acctgagcat atgttgcag atttacacaa ccactcaaac  
1441 attgaaaactc gactccgcaaa gggaggtagg actatgtt ttggaggctg tttgtttggc  
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1561 tcaggccata ctggcattac tggtgacaaat gttggagaccc tgaatgagga ttccttgag  
1621 atactgagtc gtgaaacgtgt taacatssc atgttggcg attttcattt gaatgaagag  
1681 gttgccatca ttttggcatc tttctctgt totacaagtgc ctttatttga cactataaaag  
1741 agtcttgatt acaagtctt caaaaccatt gtgagtcct gcgttaacta taaagttacc  
1801 aaggaaaagc ccgtaaaagg tgcttggaaat tggacaac agagatcgt ttaaacacca  
1861 ctgtgtgggtt ttccctcaca ggctgtgggt gttatcagat caattttgc ggcacactt  
1921 gatgcagcaa accactcaat tcctgatgg ctttttttttgc caaagagcag ctgtcaccat acttgcattt  
1981 atttctgaac agtcattacg tcttgcac gccatgggtt atacttcaga cctgctcacc  
2041 aacagtgtca ttattatggc atatgtact ggtggcttgc tacaacagac ttctcagtg  
2101 ttgtctaattc ttttggcact tactgttggaa aaactcagggc ctatcttgc atggatttg  
2161 gcgaaactta gtgcaggagt tgaatttctc aaggatgtt gggagattct caaatttctc  
2221 attacaggtt ttttgacat cgtcaagggtt caaatacagg ttgcttcaga taacatcaag  
2281 gattgtgtaa aatgtttcat tgatgttgc ttttttttttgc aacaaggcac tcgaaatgtg cattgatca  
2341 gtcactatcg ctggcgcaaa gttgcgtatca ctcaacttag gtgaagtctt catcgctcaa  
2401 agcaagggac ttacccgtca gtgtatcgt ggcaaggagc agctgcact actcatgcct  
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2701 tttcgcttaaa aagggggtgc accaattaaa ggtgttgc ttttttttttgc ttggagaaga tactgtttgg  
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2881 gcatgtgttgc tagcagaggc ttttttttttgc ttttttttttgc acattttttttgc ttttttttttgc  
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3001 ggtgaagaaa acttttcatc acgtatgtat ttttttttttgc ttttttttttgc ttttttttttgc  
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3121 acagaggatg attatcaagg ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc  
3181 gttgaggaaag aagaagagga agactggctg gtttttttttgc ttttttttttgc ttttttttttgc  
3241 ccagaaccatg aacccatcacc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc  
3301 actgacaatg ttggcattaa atgtgttgc atcgatccatc ttttttttttgc ttttttttttgc  
3361 atgggtattt taaaatgttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc  
3421 ctcaacaagg caaccaatgg ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc  
3481 gggcccttta cagtaggggg ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc  
3541 ctgcattgttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc  
3601 tatgaaaattt ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc

FIGURE 7B

3661 ggtgctaaac cacttcagtc tttacaagtgc tgcggtcaga cggttgcgtac acaggtttat  
3721 attgcagtca atgacaaagc tctttatgag cagggtgtca tggattatct tgataacctg  
3781 aaggcttagag tggaaagcacc taaacaagag gagccaccaa acacagaaga ttccaaaact  
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4081 acttgtgttga taataccctc caaaaaggct ggtggacta ctgagatgct ctcaagagct  
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4321 gaaatgcttgc tcatacgctga agagacaaga aaattaatgc ctatatgc ggtatgtt  
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4561 tttaatcttgc aagaggctgc gcgcgtatgc cgttctctt aagctcctgc cgtatgtca  
4621 gtatcatcac cagatgctgt tactacat aatggatacc tcacttcgtc atcaaagaca  
4681 tctgaggagc actttgttga aacagtttctt ttggctggctt cttacagaga ttggccttat  
4741 tcaggacagc gtacagatgtt aggtgttga ttctttaagc gtggacaa aattgtgtac  
4801 cacactctgg agagccccgt cgagtttcat ctgcacgggt aggttctt acgttgcac  
4861 ctaaaagatgc tcttacccctt gcccggaggaa aagactataa aagtgttccac aactgtggac  
4921 aacactaattc tccacacaca gcttggat atgtctatga catatggaca gcaatgggt  
4981 ccaacataact tggatgggtc tgatgttaca aaaattaaac ctcatgtaaa tcatgagggt  
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5101 catactcttgc atgagatgtt tttttgttgc tacatgtctg cttaaaacca cacaagaaaa  
5161 tggaaatttc ctcaggatgg tggatgttact tcaattaaat gggctgatca caattgtt  
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5281 caagaggctt attatagagc ccgtgcgtt gatgtgtca acttttgc actcataact  
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6361 accatcataca aggaatgttgc agtgcgtatgc ttttttttgc cccatgttgc aggcaatgt  
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6481 atggctgtttt atgtggaaaaa cacaaggatc accatgttgc aacatgttgc gtttgcgtt  
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6661 tggatgttgc ttttttttgc caattatgc ttttttttgc ttttttttgc ttttttttgc  
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6781 acaacttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
6841 aattatgttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
6901 ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
6961 aatttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
7021 gtttactacta ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
7081 gactcccttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
7141 ctatgttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
7201 aaatttgcgtt ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc  
7261 agtcatatc ttttttttgc ttttttttgc ttttttttgc ttttttttgc ttttttttgc

**FIGURE 7C**

FIGURE 7D

11041 cttggattata tggcaattgc tgcattgtgct atgctgcttg ttaagcataa gcacgcattc  
11101 ttgtgcttgc ttctgttacc ttctcttgca acagttgctt actttaatat ggtctacatg  
11161 cctgctagct gggtgatgcg tatcatgaca tggcttgaat tggctgacac tagcttgct  
11221 ggttataggc ttaaggattg tgttatgtat gttcagctt tagtttgct tattctcatg  
11281 acagctcgca ctgttatga tgatgtgct agacgtgtt ggacactgat gaatgtcatt  
11341 acacttgtt acaaagtcta ctatggtaat gcttagatc aagctatttc catgtggcc  
11401 ttagttattt ctgtAACCTC taactattct ggtgtcgta cgactatcat gtttttagct  
11461 agagctatag tgTTTGTG TGTTGAGTAC TACCCATTGT TATTTTATTAC TGGCAACACC  
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11581 ctttctgtt tactcaaccg ttacttcagg ctactcttg gtgttatga ctacttggc  
11641 tctacacaag aatttaggtat tatgaactcc caggggctt tgcctcctaa gagtagtatt  
11701 gatgcttca agcttaacat taagtgttg ggtattggag gtaaacatg tatcaagggtt  
11761 gctactgtac agtctaaaat gtctgacgt aagtgcacat ctgtggtaact gctctcggtt  
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11881 aatgatattc ttcttgcaaa agacacaact gaagcttgc agaagatggt ttctctttg  
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12361 tgggtttcac tcaacatcat accattgtact acagcagccaa aactatgtt tggtgtccct  
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12541 atggacaattt caccatattt ggcttggctt ctattgttca cagctctaaag agccaaactca  
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12661 gctgttacca cacaacacgc ttgtactgtt gacaatgcac ttgcctacta taacaattcg  
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13561 atttatttgc ctcttactttt gtgtttttttt ggtttttttt ggtttttttt ggtttttttt  
13621 agacttta taacttgcgtt aaagattgtt cagcgggttgc tggccatgtac tttttcaatgt  
13681 ttagagttaga tggtagatgtt gtagccatata tttttttttt tttttttttt tttttttttt  
13741 tggctgttgc agtctatgtt ctacgttgc ttgttagggg taattttttt tttttttttt  
13801 aaatactcgt cacatataat tttttttttt tttttttttt tttttttttt tttttttttt  
13861 acttcgttgc gaaatccgtt atcttacgtt tttttttttt tttttttttt tttttttttt  
13921 aatcattattt aaagactgtt caatttgcgtt atgtttttttt tttttttttt tttttttttt  
13981 tactgtatgtt agataatgtt gatcttgcgtt ggtttttttt tttttttttt tttttttttt  
14041 aagtagcacc aggtgtggc gtttcttattt tttttttttt tttttttttt tttttttttt  
14101 tcctcactttt gactaggggca tttttttttt tttttttttt tttttttttt tttttttttt  
14161 cacttattaa gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
14221 accgttattt taaatattttt gttttttttt tttttttttt tttttttttt tttttttttt  
14281 atagggttgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
14341 caagttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
14401 ctggataccat tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
14461 cgcgtctcgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
14521 ctggcaattt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
14581 atgttgc当地 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
14641 tggcttaaagg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
14701 aggtggccaa cgcgtctcgtt tttttttttt tttttttttt tttttttttt tttttttttt

**FIGURE 7E**

FIGURE 7F

18481 gtgatacact gaaaggattt tcagacagag tcgtgttcgt cctttggcg catggcttg  
18541 agcttacatc aatgaagtac tttgtcaaga ttggacctga aagaacgtgt tgtctgtgt  
18601 acaaacgtgc aacttgcttt tctacttcat cagatactta tgccctgctgg aatcattctg  
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18781 gttgtatgc tatcatgact agatgttag cagtccatga gtgccttgc aagcgcgttg  
18841 attggctgt tgaataccct attataggag atgaactgag ggttaattct gttgcagaa  
18901 aagtacaaca catggttgtg aagtctgcat tgcttgcgt taagttcca gttcttcatg  
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19021 acgatgctca gccatgttagt gacaaagctt aaaaaataga ggagctttc tattcttatg  
19081 ctacacatca cgataaattt actgatgggt ttgtttgtt ttgaaattgt aacgttgatc  
19141 gttacccagc caatgcaatt gtgttaggt ttgacacaag agtcttgtca aacttgaact  
19201 taccaggctg tcatgggtgt agttgtatc tgaataagca tgcattccac actccagctt  
19261 tcgataaaaag tgcattttact aatttaaaggc aattgccttt ctttactat tctgatagtc  
19321 cttgtgagtc tcatggcaaa caagtatgtt cggatattga ttatgttcca ctcaaatctg  
19381 ctacgtgtat tacacgatgc aatttaggtt gtgtgtttt cagacaccat gcaaatacg  
19441 accgacagta cttggatgca tataatatga tgatttctgc tggatttagc ctatggattt  
19501 acaaacaatt tgatacttat aacctgttga atacatttac caggttacag agtttagaaa  
19561 atgtggctta taatgttgtt aataaaggac acattgtatgg acacgcccggc gaagcacctg  
19621 ttccatcat taataatgtt gttacacaa agttagatgg tattgtatgtt gagatcttt  
19681 aaaataaagac aacacttcct gtaatgtt cattttagt ttgggctaag cgtAACATTA  
19741 aaccagtgcc agagattaag atactcaata atttgggtgt tgatatcgct gctaatactg  
19801 taatctggaa ctacaaaaga gaagccccag cacatgtatc tacaataggt gtctgcacaa  
19861 tgactgacat tgccaagaaa cctactgaga gtgtgtttc ttcaacttact gtctgttt  
19921 atggtagagt ggaaggacag gttagactt tttagaaacgc ccgtaaatgg gtttaataaa  
19981 cagaagggtt cgttcaatggc aattttttttt ctaacaccc taaagggacc agcacaagct akgcgtcaatg  
20041 gagtcacatt aattggagaa tcagttaaaaa cacatgtttaa ctactttaag aaagtagacg  
20101 gcattattca acatgttgcct gaaacctact ttactcagag cagagactta gaggatttt  
20161 agcccagatc acaaataatggaa actgactttc tggacttcgca tattgtatggaa ttcatacagc  
20221 gatataagct cgagggttat gccttcgaac acatgttta tggagatttc agtcatggac  
20281 aacttggcggt tcttcattta atgataggct tagccaagcg ctcacaagat tcaccactta  
20341 aatttagagga ttttatccct atggacacca cagtggaaaaa ttacttcata acagatgcgc  
20401 aaacagggtt atcaaaaatgt gtgtgttctg tgattgtatc ttacttgcgt gactttgtcg  
20461 agataataaa gtcacaagat ttgtcagtga ttcaaaaatgg ggtcaagggtt acaatttgcact  
20521 atgctgaaat ttcatcatg ctttgggtgtt aggtatggaca tggaaacc ttctaccctt  
20581 aactacaagc aagtcaagcg tggcaaccag gtgttgcgtt gcctaacttgc tacaagatgc  
20641 aaagaatgtt tcttggaaaatgg tggacttc agaattatgg tgaaaatgtt gttataccaa  
20701 aaggaataat gatgaatgtc gcaaagtata ctcaactgtt tcaataactta aatacactta  
20761 cttagctgtt accctacaac atgagatgtt ttcaactttgg tgctggctt gataaaggag  
20821 ttgcaccagg tacagctgtt ctcagacaat ggttgcacac tggcacacta cttgtcgatt  
20881 cagatcttaa tgacttcgtc tccgacgcacg attctacttt aattggagac tggcaacac  
20941 tacataccgc taataatgg gacccatata tttagcgatata gtatgaccctt aggaccaaac  
21001 atgtgacaaa agagaatgtc tctaaagaag ggtttttcac ttatctgtgt ggatttataaa  
21061 agcaaaaactt accctgggtt ggttctatgc ctgtaaagat aacagagcat tcttggaaatg  
21121 ctgacccatc caagcttgc ggcatttttgc catgggtggac agttttgtt acaaataatgtaa  
21181 atgcatcatc atcggaaatgg ttttaattt gggtaacta tcttggcaag cccggaaac  
21241 aatttgcgtt ctatccatg catgctaactt acatgttgcgtt gaggaacaca aatcctatcc  
21301 atgtgttttcc ttatccatc tttgacatgtt gcaaaatttc tcttaatttta agaggaactg  
21361 ctgtatgtt tcttaaggat aatcaaatca atgatatgtt ttattttctt ctggaaaaaaag  
21421 gtaggctt cattagagaa aacaacacat gttgttttca aagtgtatattt ttgtttaaca  
21481 actaaacgaa catgttttattt ttcttattt ttccttactt cactagtggt agtgacccct  
21541 accgggtgcac cacttttgc gatgttcaag ctccttactt cactoacat acttcatctt  
21601 tgaggggggtt ttactatcc tggaaattt ttagatcaga cacttccat ttaactcagg  
21661 atttatttttcc tccatccatc tctaatttttca cagggtttca tactattat catacgcc  
21721 gcaaccctgtt cataccctttt aaggatggta ttatgttgc tgccacagag aatcaaatg  
21781 ttgtccgtgg ttgggtttt ggttctatcc tgaacaaacaa gtcacagtgc tgatttattt  
21841 ttaacaatttca tactaatgtt gttatacgat catgttaactt tgaattgtgt gacaaccctt  
21901 tctttgtgtt ttcttacccatc atgggtacac agacacatac tatgtatattc gataatgc  
21961 ttaatttgcac ttgcgttac atatctgtt cttttcgct tggatgttca gaaaagtcag  
22021 gtaattttaa acacttacga gagttttgtt taaaataaa agatgggtttt ctctatgtt  
22081 ataagggttca tcaacccatata gatgttagttc gtgtatctacc ttctgggtttt aacacttttga  
22141 aacccatccatc taagttgcctt ctggatattt acattacaaa ttttagagcc attcttacag

FIGURE 7G

22201 ccttttacc tgctcaagac atttggggca cgtcagctgc agcctatttt gttggctatt  
22261 taaaggccaa tacatttatg ctcaagatag atgaaaatgg tacaatcaca gatgctgttg  
22321 attgttctca aaatccactt gctgaactca aatgctctgt taagagctt gagattgaca  
22381 aaggaattta ccagacctct aatttcaggg ttgttccctc aggagatgtt gtgagattcc  
22441 ctaatattac aaacttgtgt cctttggag aggttttaa tgctactaaa ttcccttctg  
22501 tctatgcatt ggagagaaaa aaaattctca attgtgttg tgattactct gtgctctaca  
22561 actcaacatt ttttcaacc ttaagtgtt atggcgccc tgccactaag ttgaatgatc  
22621 tttgcttctc caatgtctat gcagattctt ttgttagtcaa gggagatgtt gtaagacaaa  
22681 tagcgccagg acaaactggg gttattgctg attataatta taaattgcca gatgattca  
22741 tgggttgtgt cttgtcttgg aatacttaga acattgatgc tacttcaact ggttattata  
22801 attataaata taggtatctt agacatggca agcttaggcc ctttgagaga gacatatcta  
22861 atgtgcctt ctcctctgtt ggcacaaacctt gcacccccacc tgctttaat tggttattggc  
22921 cattaaatga ttatgggtt tacaccacta ctggcattgg ctaccaaccc tacagagtt  
22981 tagtacttc tttgaactt ttaaatgcac cgcccacggg ttgtggacca aaattatcca  
23041 ctgacccctat taagaaccag tggtaacttcaattttaa tggactctact ggtactgggt  
23101 tgtaactcc ttcttcaaaag agatttcaac catttcaaca atttggccgt gatgttctg  
23161 atttcaactga ttccgttgcg gatcctaaaa catctgaaat attagacatt tcaccttgc  
23221 cttttggggg tgtaagtgtt attacacctg gaacaaatgc ttcatctgaa gttgctgttc  
23281 tatatacaaga tgtaactgc actgatgttt ctacagcaat tcatgcagat caactcacac  
23341 cagcttgccg catatattct actggaaaca atgtatttca gactcaagca ggctgtctt  
23401 taggagctga gcatgtgcg acttctttagt agtgcgacat tccttattgg gttggcattt  
23461 gtgcttagtt ccatacagg tcttttattac gttagtactag cccaaaatctt atgtggctt  
23521 atactatgtc tttaggtgt gatagttcaa ttgcttactc taataacacc atgtctatac  
23581 ctactaactt ttcaatttgcg attactacag aagtaatgccc tgtttctatg gtttttttt  
23641 ccgttagattg taatatgtac atctggggg attctactga atgtgtaat ttgttctcc  
23701 aatatggtag ctttgcaca caactaaatc gtgcactctc aggtatttgc gtttttttt  
23761 atcgcaacac acgtgaagtg ttcgctcaag tcaaacaat gtacaaaacc ccaactttga  
23821 aatattttgg tgggtttaat ttttcacaaa tattacctga ccctctaaag ccaactaaga  
23881 ggtcttttat tgaggacttg ctctttaata aggtgacact cgctgatgtt ggcttcatga  
23941 agcaatatgg cgaatgccta ggtgatattt atgcttagaga tctcattttgt ggcgcagaatg  
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24061 ctgctctagt tagtggact gccactgctg gatggacatt ttgtgtcttgc gtcgtcttcc  
24121 aaataccctt tgctatgc当地 atggcatata gttcaatggg cattggagtt accccaaaatg  
24181 ttctctatga gaaccaaaaaa caaatcgcca accaatttacca caaggcgatt agtcaattt  
24241 aagaatcaact tacaacaaca tcaactgc当地 tggcaagct gcaagacgtt gtttaccaga  
24301 atgctcaagc attaaacaca cttgttaaac aacttagctc taattttggt gcaatttcaa  
24361 gtgtgctaaa tgatattcct tcgcgacttg ataaagtgc当地 ggcggaggtt caaatttgaca  
24421 ggttaattac aggagactt ccaaggcttc gctaatttttctg ctgctactaa aatgtctgag  
24481 ctgctgaaat cagggttctt 24541 gacaatcaaa aagagttgac ttttggaa agggctacca ctttatgtcc  
24601 cagccccgca tgggttgc当地 ttccctacatg tcaacgtatgtt gccatccc当地 gagaggaact  
24661 tcaccacagc gccagcaatt tgc当地 gcaaaagcata cttccctc当地 gaagggtt  
24721 ttgtgtttaa tggcacttctt 24781 ttactacaga caatacattt gtctc当地 cacagaggaa cttcttttct  
24841 acacagtta tgatccctgc caacctgagc tgcactcatt caaagaagag ctggacaatg  
24901 acttcaaaaaa tcatacatca ccagatgtt atcttggc当地 catttc当地 attaacgc当地  
24961 ctgtcgtaa cattcaaaaaa gaaattgacc gcctcaatga ggtcgctaaa aattttaaatg  
25021 aatactcat tgc当地 gaaattggaa aatatgagca atatatttttggg当地 atcttgc当地  
25081 atgttggtctt cggcttcatc gctggactaa ttgc当地 cttgttaca atcttgc当地  
25141 gttgcatgac taggttgc当地 agttgc当地 aggtgc当地 ctcttgc当地 ttttgc当地  
25201 agttgatga ggtgactt gaggcaggttc tcaagggtt当地 caaatttacat tacacataaa  
25261 cgaactttagt gatttgc当地 tgagattttt tacttgc当地 tcaattactg cacagc当地  
25321 aaaatttgc当地 aatgcttctc ctgcaagttc tggc当地 atatatttttgc当地  
25381 agcctcactc ccttc当地 ggcttggat tggc当地 ttttgc当地 ttttgc当地  
25441 cgctacccaaa ataatttgc当地 tcaattaaag atggcagctt gccc当地  
25501 gttcatttgc aatttactgc tgcttatttgc当地 taccatctt当地  
25561 tgc当地 gaggttgc当地 ttttgc当地 ttttgc当地  
25621 caacgc当地 agaatttatttgc当地 tgagatgtt当地  
25681 attactttat gatgccaact actttgtt当地  
25741 accatataac agtgc当地 atacaatttgc当地  
25801 aaaactcaaa gaagactacc aaatttgc当地 ttatttgc当地  
25861 agactatgtc gttgatcatg gctatttgc当地 cgaagtttac  
taccatctt当地

**FIGURE 7H**

25921 aattactaca gacactggta ttgaaaatgc tacattcttc atctttaaca agcttgtta  
25981 agaccacccg aatgtcaaa tacacacaat cgacggctc tcaggagtt ctaatccaga  
26041 aatggatcca atttatgatg agccgacgac gactactagc gtgccttgc aagcacaaga  
26101 aagttagtac gaacttatgt actcattcg ttcggaagaa acaggtagt taatagttaa  
26161 tagcgactt cttttcttg ctttcgttgt attcttgcata gtcacactag ccatccttac  
26221 tgcgcttcga ttgtgtgcgt actgctgcaa tattgttaac gtgagtttag taaaaccaac  
26281 ggttacgtc tactcgctg taaaaatct gaactcttct gaaggagtt ctgatctt  
26341 ggtctaaacg aactaactat tattattatt ctgtttggaa cttaacatt gttatcatg  
26401 gcagacaacg gtactattac cgttgaggag cttaaacaac tccttgaaca atggaacct  
26461 gtaatagggt tcctattcct agcctggatt atgttactac aatttgccta ttctaatcgg  
26521 aacagggttt tgtacataat aaagcttggtt ttccctctggc tcttgtggcc agtaacactt  
26581 gcttgggg tgcttgctgc tgtctacaga attaattggg tgactggcg gattgcatt  
26641 gcaatggctt gtattgtagg cttgatgtgg cttagctact tcgttgcctc cttcaggctg  
26701 tttgctcgta cccgctcaat gtggtcattc aacccagaaa caaacattct tctcaatgtg  
26761 cctctccggg ggacaattgt gaccagacg ctcatggaaa gtgaacttgt cattgggtct  
26821 gtgatcattc gtggtactt gcbaatggcc ggacaccccc tagggcgctg tgacattaag  
26881 gacctgccaa aagagatcac tggctaca tcacgaacgc tttcttatta caaatttagga  
26941 gcgtcgacg gtgttaggcac tgattcagggt ttgctgcata acaaccgcata ccgtattgg  
27001 aactataaat taaatacaga ccacgcgggt agcaacgaca atattgttt gctagtagc  
27061 taagtgacaa cagatgttc atcttgcata atcttcgggtt acaatagcag agatattgt  
27121 tattcattat aggactttc ggattgtat ttgaaatctt gacgttataa taagtcaat  
27181 agtgagacaa ttatctaaggc ctctaactaa gaagaattat tcggagtttag atgatgaaga  
27241 acctatggag ttagattatc cataaaacga acatggaaaat tattctttc ctgacattga  
27301 ttgtattttc atcttgcag cstatatact atcaggagtg ttttagaggt acgactgtac  
27361 tactaaaaga accttgcaca tcaggaacat acggggcaat ttccacattt cacccttgg  
27421 ctgacaataa atttgcacta acttgcacta gcacacactt tgctttgc tttgctgacg  
27481 gtactcgaca tacctatcg ctgcgtgcaaa gatcagttt accaaaactt ttcatcagac  
27541 aaggaggaggt tcaacaagag ctctactc cacttttctt cattgttgc gctctagtat  
27601 ttttaataact ttgcttcacc attaagagaa agacagaatg aatgagctca cttaattga  
27661 cttctatttgc tgcttttttag ctttctgtctt attccttgc ttaataatgc ttattatatt  
27721 ttggtttca ctgcggaaatcc agatctaga agaaccttgc accaaagtct aaacgaacat  
27781 gaaacttctc attgttttgc ttgttatttc tctatgcgt tgcatatgc ctgttagtaca  
27841 ggcgtgtca tctaataaaac ctcatgtgt tgaagatccc ttttaggtac aacactaggg  
27901 gtaataactta tagactgct tggctttgt ctctaggaaa ggttttaccc ttcatagat  
27961 ggcacactat ggttcaaaca tgcacaccta atgttactat caactgtcaa gatccagctg  
28021 gtggtgct tatagtctagg tgggttacc ttcatgaagg tcaccaaact gtcgcattt  
28081 gagacgtact tggttttta aataaacgaa caaattaaaaa ttttaggtac tggacccca  
28141 tcaaaccac gtagtgcccc tccgattaca tttggtgac ccacagattc aactgacaat  
28201 aaccagaatg gaggacgcaat tggggcaagg cccaaacagc gccgacccca aggttaccc  
28261 aataatactg cgtcttgcgtt cacagctctc actcagcatg gcaaggagga acttagattc  
28321 cctcgaggcc agggcgttcc aatcaacacc aatagtggtc cagatgacca aattggctac  
28381 taccgaagag ctacccgacg agttcgttgt ggtgacggca aatgaaaga gctcagcccc  
28441 agatggtaact tctattacct tgcgtatgggt tgcgtactggcc cacttcccta cggcgctaa  
28501 aaagaaggca tgcgtatgggt tgcgtactggcc cacttcccta cggcgctaa  
28561 ggcacccgca atcctaataa caatgtgtcc accgtgtctac aacttccca aggaacaaca  
28621 ttgccaaaag gcttctacgc ttcagaat tcaactctcg gcagcgttag gggaaatttc  
28681 tcatcacgt gtcgggtaa aggtgggtaa actgccttcg cgctattgtc gtagacaga  
28741 cctgtcgaa ttgttagcggt agttcttgtt aaaggccaaac aacaacaagg ccaaactgtc  
28801 ttgaaccacg ttgagagcaa ggcattctaa aagcctcgcc aaaaactgtac tggccaaaaa  
28861 actaagaaat ctgtgtctga atttgggaga cgtggtccag aacaaacccca agggaaatttc  
28921 cagtacaacg tcactcaagc acaaggaact gattacaaac attggccgca aattgcacaa  
28981 ggggaccaag acctaatacg attctttgc atgtcacgca ttggcatgga agtcacaccc  
29041 tttgctccaa gtgcctctgc tcatggagcc attaaattgg atgacaaaga tccacaattc  
29101 tcgggaacat ggctgactta gaacaagcac attgacgcatt acaaaacatt cccaccaaca  
29161 aaagacaacg tcataactgct gaaaaagact gatgaagctc agccttgc gcaagacaaa  
29221 gagcctaaaa aggacaaaaaa tcttcttgc tgggtcgaca tggatgattt ctccagacaa  
29281 aagaagcagc ccactgtgac agcttctgtc gattcaactc aggatcaaac actcatgatg  
29341 cttcaaaattt ccatgagtgg tatgtaaacg ttttcgtcaat tccgtttacg atacatagtc  
29401 accacacaac gcatgggc tctcgtaact aacacgaca agtaggttta gttactttt  
29461 tactttgtc cagaatgaat atcaatgtt aacatttaggg aggactgaa agagccacca  
29521 atctcacata gcaatcttgc gggatcattt gggatcattt gttactttt  
29581 catttcatc gaggccacgc gggatcattt gggatcattt gttactttt

**FIGURE 7I**

29641 ctgcctataat ggaagagccc taatgtgtaa aattaatttt agtagtgcta tccccatgtg  
29701 attttaatag cttcttagga gaatgac

## FIGURE 8 A

### FIGURE 8 B

3061 gaggacgatg cagagtgtga ggaagaagaa attgatgaaa cctgtgaaca tgagtacgg  
3121 acagaggatg atttcaagg tctccctctg gaatttggc ctcagctga aacagttcg  
3181 gttgaggaaag aagaagagga agactggctg gatgatacta ctgagcaatc agagatgg  
3241 ccagaaccag aacctacacc tgaagaacca gtaatcagt ttactggta ttaaaactt  
3301 actgacaatg ttgcattaa atgttgtgac atcgtaagg aggacaaaag tgcataatcct  
3361 atggtgattg taaatgtgc taacatacac ctgaaacatg gtgggtgtg acgaggtgca  
3421 ctcaacaagg caaccaatgg tgccatgcaa aaggagatg atgattacat taagctaat  
3481 ggccttta ctagggagg gtcgttgc ctttctggac ataatctgc taagaagtgt  
3541 ctgcattgtt ttggaccaa cctaaatgc ggtgaggaca tccagctct taaggcagca  
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3661 ggtgttaaac cactcagtc ttacaagtg tgcgtgcaga cggtcgatc acaggtttat  
3721 atgcagtca atgacaaagc tctttatgag cagggtgtca tggattatct tgataacctg  
3781 aagcctagag tggaaagcacc taaaacagag gagccaccaa acacagaaga ttccaaaact  
3841 gaggagaat ctgtgtaca gaagcgtgc gatgtgaagc caaaaattaa ggcctgcatt  
3901 gatgaggta ccacaacact ggaagaaaact aagtttctt ccaataagtt actcttgg  
3961 gctgatcatca atggtaagct ttaccatgt tctcagaaca tgcttagagg tgaagatatg  
4021 tccttccttg agaaggatgc accttacatg gtaggtgtt atactactg tggtgatatc  
4081 acttgtgtt taatccccca caaaaaggct ggtggcacta ctgagatgct ctcaagagct  
4141 ttgaagaaag tgccagttga tgagtatata accacgtacc ctggacaagg atgtgttgt  
4201 tatacacttg aggaagctaa gactgtctt aagaatgc aatctgcatt ttatgtacta  
4261 cttcagaag caccaatgc taaggaagag attcttagaa ctgtatctg gaatttgaga  
4321 gaaatgttg ctcatgtga agagacaaga aaattaatgc ctatatgcat ggatgttaga  
4381 gccataatgg caaccatcca acgtaagtat aaaggaatta aaattcaaga gggcatcg  
4441 gactatggt tccgattctt cttttatact agtaaagagc ctgtatctc tattttacg  
4501 aagctgaact ctctaaatga gcccgtgtc acaatgcca ttggttatgt gacacatgg  
4561 tttaatcttg aagaggctgc gcgcgtgtatc cgttcttta aagctccctgc cgtatgtca  
4621 gtatcatcac cagatgtgt tactacat aatggatacc tcactcgatc atcaagagaca  
4681 tctgaggagc acttttgtaa aacagtgttctt ttggctggctt cttacagaga ttggcttat  
4741 tcaggacagc gtacagagggtt aggttgtaa ttctttaagc gtgggtgacaa aatttgttac  
4801 cacactctgg agagcccccgt cgagtttcat cttgacgggtg aggttcttc acttgacaaa  
4861 ctaaagatgc tcttacccctt gggggagggtt aagactataa aagtgttac aacttgac  
4921 aacactaatac tccacacaca gettgtggat atgtctatga cataatggaca gcagtttgt  
4981 ccaacataact tggatggtgc tgatgttaca aaaattaaac ctcatgtaaa tcatgggg  
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5101 catactcttg atgagaggttt tcttggttagg tacatgtctg ctttaacca cacaagaaaa  
5161 tggaaatttc ctcaaggatgg tgggttaact tcaattaaat gggctgataa caattgttat  
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5281 caagaggctt attatagagc ccgtgtgtt gatgtgtca acttttgtc actcataact  
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5581 tatctatgtt acacaagatgc ttcttttgtt atgatgtctg caccacgtgc tgagtataaa  
5641 ttacagcaag gtacattttt atgtgtgtt ggtgtgtt gatgttactt gttatgtgg  
5701 tacactcata taactgtttaa ggagaccctt tttttttttt acggagatca ctttacaaag  
5761 atgtcagatgtt acaaaaggacc agtgcgtgtt gttttttttt aacccatgtt tttttttt  
5821 accatcaagc ctgtgtgtt aacactcgat ggtgtgtt acacagagat tttttttttt  
5881 ttggatgggtt attttttttt ggtttttttt gttttttttt acacagat tttttttttt  
5941 ccaacatcaac cttttttttt tttttttttt gttttttttt aacccatgtt tttttttttt  
6001 aaattttttt atgatgtttt tttttttttt tttttttttt tttttttttt  
6061 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
6121 tcagcgagggtt tttttttttt tttttttttt tttttttttt tttttttttt

### **FIGURE 8 C**

**FIGURE 8 D**

9301 caacctgtgg gtgcTTTaaa tggTCTGCT tcagtagtgg ctggTggat tattgcata  
9361 ttggTgactt gtgcTGCTTA ctacTTATG aaattcagac gtgtttTgg tgagtacaac  
9421 catgtgtt ctgcTaatgc acTTTGTtT ttgatgttT tcactatact ctgtcgtta  
9481 ccagcTTaca gTTTCTGCC gggagTctac tcagTtttT acTTTGTactt gacattctat  
9541 ttcaccaatg atgTTTCTT cttggcTcac cttcaatggT ttgcCATGTT ttCTCCTT  
9601 gtgcCTTTT ggataacAGC aatctatgtA ttCTGTtTT ctctgaAGCA ctgcCATTGG  
9661 ttCTTAAACA actatCTTAg gaaaAGAGTC atgTTTaaAtg gagTTACATT tagtACCTT  
9721 gaggaggCTG cTTTGTtAc cTTTGTCTC aacaaggAAA tgTACCTAAA attTGCCTAGC  
9781 gagacACTGT tgccACTTAC acagtATAAC aggtATCTG ctCTATATAA caagtACAAG  
9841 tattTCAGT gaggCCTAGA tactACCAGC tatCgtGAAG cagTTGCTG ccACTTAGCA  
9901 aaggCTCAA atgACTTAg caactCAGGT gCTGATGTT tcTACCAACC accACAGACA  
9961 tcaatCAct CTGCTTCTC gcagAGTggT tttaggAAA ttggCATTCCC gTCAGGCAA  
10021 gttGAAGGGT gcatGGTACA agtaACCTGT ggaACTACAA ctCTTAATGG attGTGGTT  
10081 gatgacACAG tataCTGTCC aagACATGTC attTGCACAG cagaAGACAT gCTTAATCCT  
10141 aactATGAAG atCTGCTCAT tcgcaAAATCC aaccATAGCT ttCTGTtCA ggCTGGCAAT  
10201 gttcaACTTC gtgttATGG ccattCTATG cAAAATTGTC tgCTTAgGCT taaAGTTGAT  
10261 acTCTAACC ctaAGACACC caagtATAAA ttGTCCTGTA tCCAACCTGG tCAAACATT  
10321 tcagTTCTAG catGTcAAAC tggTCACCA tCTGGTGTtT atcAGTGTGc catGAGACCT  
10381 aatCATAACCA ttaaAGGTtC ttTCCTTAAT ggATCAtGTG gtagTGTGG tttaACATT  
10441 gattATGATT gCGTGTCTT CTGCTATATG catCATATGG agCTCCAAC aggAGTACAC  
10501 gCTGGTACTG acTTAGAAGG taaATTCTAT ggTCCTTGG ttGACAGACA aactGcacAG  
10561 gCTGcAGGTA cAGACACAAc cATAACATTAA aatGTTTGG catGGCTGTA tgCTGCTGT  
10621 atcaATGGT atAGGTGGT ttCTTAATAGA ttCACCACTA ctTTGAATGA ctTTAACCTT  
10681 gtggCAATGA agTACAACtA tgaACCTTtG acACAAGATC atGTTGACAT attGGGACt  
10741 ctTTCTGTC AAACAGGAAT tgCCGTCTA gatATGTG TGCTTGTAA agAGCTGCTG  
10801 cagaATGGTA tgaATGGTCg tactATCCTT ggtagCActA ttTTAGAAGA tgAGTTAC  
10861 ccATTGATG ttGTTAGACAt gtcTCTGGT gttACCTtCC aaggTAAGt caAGAAAATT  
10921 gttAAAGGCA cTCATCATG gatGCTTtA acTTCTGTA catCACTATT gattCTGTt  
10981 caaaGTAACAC agTTGTCATC gTTTtCTTt gttACAGAAT ATGTTTCTTt gCcATTtACt  
11041 ctTGGTATTa tggCAATGc tgcATGTGCT atGTCGCTG ttaAGCATAA gCACGcATT  
11101 ttGTTGTTGT ttCTGTtAcc ttCTGTtCA acAGTGTCTT acTTAAATAT gGTCTACATG  
11161 CCTGCTAGt gggTgATGCG tATCATGACA tggCTGAAT tggCTGACAC tagCTGTCT  
11221 ggttatAGGC ttaAGGATTG tGTTATGTAT gCTTCAGETT tagTTTGTt tattCTCATG  
11281 acagCTCGA CTGTTATGA tgaTGTGCT agacGTGTT ggACACTGAT gaATGTCATT  
11341 acACTTGTtT ACAAAAGTCA CTAGGTAAT gCTTGTAGtC aAGCTTATTC catGTGGCC  
11401 ttAGTTTtTt CTGTAACCTC TAACtATtCt ggtGTGTTA CGACTATCAT gTTTTAGtC  
11461 agAGCTATAG tGTTTGTG tGTTTGTGTT TACCCATTGT tATTtATTAC tggCAACAC  
11521 ttACAGTGTa tCATGTCTGTT ttATGTTtC ttagGTtAtt gttGTGCTG CTACTTTGc  
11581 ctTTCTGTT tactCAACCG ttACTTCAGG ctTACTCTG tgTTTATGA ctACTGGtC  
11641 tCTACACAAAG aATTtAGGTa tATGAACtCC cAGGGCtTt tgCTCCTAA gAGTGTGTT  
11701 gatGTTtCA agCTTAACAT taAGTGTG TGTTTGGAG gtaAAACCATG tATCAAGGTT  
11761 gCTACTGTAC agtCTAAAT gCTGACGTA aAGTGTGACAT CTGFGGTACT gCTCTCGGT  
11821 ctTCAACAAc ttAGAGTgTA gTCATCTCTT AAATGTGGG cACAATGTGt ACAACTCCAC  
11881 aatGATATtC ttCTGCAAA AGACACAACT gAAGCTTcG AGAAGATGGT ttCTTtttG  
11941 tCTGTTGc TATCCATGCA gggTGTGTA gACATTAATA ggtGTGCGA gggAAATGCT  
12001 gataACCGt CTACTCTCA gGCTTGTGtC tCAGAATTtA gttCTTtAcc ATCATATGCC  
12061 gCTTATGCCA CTGCCAGGA gGCTTGTGAG CAGGCTGTAG CTAATGGTA ttCTGAGTC  
12121 gttCTCAAA AGTAAAGAA ATCTTGAAT gTGGCTAAAT CTGAGTTGA CGGTGATGCT  
12181 gCCATGCAAC gCAAGTGGA AAAGATGGCA gATCAGGCTA tgACCCAAAT gTACAAACAG  
12241 gCAAGATCTG AGGACAAGAG gGCACAAAGTA ACTAGTGTCA tgCACAACAT GCTCTTCACT  
12301 atGCTTAGGA AGCTTGATAA tgATGCACTT AACAACATTA tCAACAAATGC gCGTGTGATGGT  
12361 tGTTTCCAC tCAACATCAT ACCATTGACT ACAGCAGCCA AACtCATGGT tGTTGCTT

### FIGURE 8 E

12421 gattatggta cctacaagaa cacttgtat ggtAACACCT ttacatatgc atctgcactc  
12481 tggaaatcc agcaaggatgt tgatcgccat agcaagatgt tcacacttag taaaattaac  
12541 atggacaattt caccaattt ggctggccct citattgtta cagctctaag agccaactca  
12601 gctgttaaac tacagaataa tgaactgagt ccagtagcac tacgacagat gtccgtgcg  
12661 gctggtacca cacaacagc ttgtactgtat gacaatgcac ttgcctacta taacaattcg  
12721 aaggaggta ggttgtgct ggcattacta tcagaccacc aagatctaa atggctaga  
12781 ttccctaaga gtgttgtac aggfacaatt tacacagaac tggaccacc ttgttaggtt  
12841 gttacagaca caccaaaagg gcctaaatgtt aaatacttgtt acttcataa aggcttaaac  
12901 aacctaaata gaggtatggt gctggcagt tttagctgtc cagtagctt tcaggcttgg  
12961 aatgtctacg aagtacctgc caattcaact gtgtttccct tctgtgttt tgcatgtac  
13021 cctgttaaaag catataagga ttaccttagca agtggaggac aaccaatcac caactgttg  
13081 aagatgttgtt gtacacacac ttgtacagga caggcaatta ctgtacacc agaagctaac  
13141 atggaccaag agtcccttgg tggcgttca tggtgttgtt attttagatg ccacatttgac  
13201 catccaaatc ctaaaggattt ctgtacttg aaaggtaagt acgtccaaat acctaccat  
13261 tggcataatg acccagtggg ttttacactt agaaacacag tctgtaccgt ctgcggaaatg  
13321 tggaaagggtt atggctgttag ttgtgacca cttccgcaac ctttgatgcg gtctggat  
13381 gcatcaacgt tttaaacgg gtttgcgttga taagtgcgc cctgtttaca ccgtggca  
13441 caggcacttag tactgtatgc gtcacagggtt ttgtatggat ttacaacgaa aaagtgtcg  
13501 gttttgcaaa gttcctaaaa actaattgtt gtcgttcca ggagaaggat gggaaaggca  
13561 atttattaga ctcttactt ttgtatgtt ggcataactat gtctactac caacatgtaaag  
13621 agactattta taactgggtt aaaggatgtc cagcgggttgc tgccatgtac ttttcaagt  
13681 ttagatgtt tgggtacatg gtaccacata ttttacgtca gggcttaactt aaatacaca  
13741 tggctgtt atgtctatgtt ctacgttattt ttgtatggggg taattgtatg acataaaag  
13801 aaatactgtt cacatataat tggcgtatg atgtttttt caataagaag gattggatg  
13861 acttcgttga gaatctgtac atcttacgctg tataatgttta cttttgttgcg cttgtacgcc  
13921 aatcattttt aaagactgtt caatctgtcg atgttatgtcg tgatgcaggc attttaggcg  
13981 tactgtacattt agataatgtt gatcttacgtt ggaactggta cgatttgcgtt gatttgcgt  
14041 aagtgttgcg aggctggaa gtttccatgtt tgatttgcata ttacttacgtt ctgtatgc  
14101 ttccactttt gacttggcgtt ttggctgtt atgtttttt ggtatgtatg ctgc  
14161 cacttattaa ttgggattttt ctgtttttttt attttacggta agagagactt ttttgc  
14221 accgtttttt taaatattgg gaccagacat accatccaa ttgtatgtt ttttggat  
14281 atagggtat ttttccatgtt gcaactttt atgtttttt ttctactgtt tttccacca  
14341 caagttttgg accacttagtta agaaaaatattt ttgtatgtt gtttccctttt gttttca  
14401 ctggataccat ttttccatgtt ttggatgttgc tacataatca ggtatgttac ttacatgtt  
14461 cgcgttccatgtt ttttccatgtt atgtttttt ttttccatgtt ttttccatgtt  
14521 ctggcaattt atgtttttt ttttccatgtt ttttccatgtt ttttccatgtt  
14581 atgtttttt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
14641 ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
14701 aggtatggca cttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
14761 gtatgttgc ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
14821 atggatgttgc ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
14881 ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
14941 aagatgttgc ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
15001 ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
15061 gtatgttgc ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
15121 gagttttttt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
15181 ctgtttttt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
15241 gagttttttt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
15301 ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
15361 gtatgttgc ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
15421 atgtttttt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt  
15481 ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt ttttccatgtt

## FIGURE 8 F

## FIGURE 8 G

18661 tgggttttga ctatgtctat aacccttta tgatttgatgt tcagcagtgg gcctttacgg  
18721 gtaaccttca gagtaaccat gaccaacatt gccaggatca tggaaatgca catgggcata  
18781 gtttgatgc tatcatgact agatgttag cagtccatga gtgccttgtt aagcgcgttg  
18841 attggctgt tgaataccct attataggag atgaactgag gtttaatctt gcttgcagaa  
18901 aagtacaaca catggttgt aagtctgcat tgcttgcata taagttcca gttcttcatg  
18961 acattggaaa tccaaaggct atcaagtgt tgccctcaggc tgaagtagaa tggaaagtct  
19021 acgatgctca gccatgtatg gacaaagctt acaaataataga ggaactcttc tattcttatg  
19081 ctacacatca cgataaaattc actgtatggt ttgtttgtt tggaaattgt aacgttgtac  
19141 gttacccagc caatgcattt gtgttaggt tgacacaag agtcttgtca aacttgaact  
19201 taccaggctg tgatgggtt agtttgtatg tgaataagca tgcatcttccac actccagct  
19261 tcgataaaag tgcatattact aatttaaagc aatttgccctt ctittactat tctgatagtc  
19321 ctgttgagtc tcatggccaa caagtagtgt cggatattga ttatgttcca ctcaaatctg  
19381 ctacgtgtat tacacgatgc aatttaggtg gtgtcttgtt cagacaccat gcaaatgagt  
19441 accgacagta ctggatgca tataatatgta tgatttgc tggatttagc tcatggattt  
19501 acaaacaatt tgatactt aacctgtgg aatcattttac caggttacag agtttagaaa  
19561 atgtggctta taatgttggt aataaaggac actttgtatgg acacgccccg gaagcacctg  
19621 ttccatcat taataatgtt gtttacacaa aggttagatgg tatttgatgtt gagatcttgg  
19681 aaaataaagac aacacttcctt gtaatgttg catttgagct ttgggctaa cgtaacattt  
19741 aaccagtgtcc agagattaag atactcaata atttgggtt tgatatcgct gctaatactg  
19801 taatctggga ctacaaaaga gaagccccag cacatgtatc tacaataggt gtcgtcaca  
19861 tgactgacat tgccaaagaaa cctactgaga gtgttgttccacttact gtcgttgtt  
19921 atgtagagt ggaaggacag gttagaccctt tttagaaacgc ccgtaatggt gttttataaa  
19981 cagaagggttc agtcaaaaggctt ctaacaccctt caaaggggacc agcacaagct agcgtcaat  
20041 gagtcacatt aattttgggaa tcaaaaaaaaaa cagtttaa ctactttaaag aagtagacg  
20101 gcattttca acatgttgcctt gaaacacttactt ttaactcagag cagagactta gaggatttt  
20161 agcccgatc acaaatggaa actgactttc tcgagctcgc tatggatgaa ttccatcagc  
20221 gatataagct cgagggtatc gccttcgaac acatcgttt tgagatttc agtcatggac  
20281 aacttggggg ttttcattttatgataggct tagccaaagcg ctcacaagat tcaccactt  
20341 aatttagagga ttttattccctt atggacagcata cagttaaaaa ttacttcata acagatcgcc  
20401 aaacagggttc atcaaaatgtt gttgtttctg tgattgtatctt ttaacttgc gactttgtcg  
20461 agataataaa gtccacaagat tttcgtatgaa ttccaaaagggtt ggtcaaggat tcaatgtact  
20521 atgctgaaat ttccatcatg cttttgttta aggatggaca ttttttttttttttttttttttttt  
20581 aactacaagc aagtcaaggcg tggcaaccag gtgttgtcgat gccttaacttgc tacaagatgc  
20641 aaagaatgt ttt  
20701 aaggaataat gatgaatgtc gcaaaagtata ttcaacttgc tcaataacttta aataacttta  
20761 ctttagctgtt accctacaac atgagagttt ttttttttttttttttttttttttttttttttttt  
20821 ttgcaccagg tacagctgtc ttccagacaaat ggttgccaaac tggcacacta ttgtcgatt  
20881 cagatcttaa tgacttcgtc tccgacgcac attctactttt aattttgggac ttttttttttttt  
20941 tacatcgcc taataatgg gaccatt  
21001 atgtgacaaa agagaatgtc tcttaaaagat ggttttttcac ttatctgtt ggttttttttt  
21061 agcaaaaactt agccctgggtt ggttt  
21121 ctgacccttta caagttatg ggcatttttcatgatggggac agtttttttttttttttttttt  
21181 atgcatt  
21241 aattttgtggt ttt  
21301 agttgtcttc ttatccatc ttgtatgaa ttcaatgttcc tcttaaatttttttttttttttt  
21361 ctgtatgttc ttcttaaggag aatcaaatca atgatatgtat ttttttttttttttttttttt  
21421 ttgggttt  
21481 actaaacgaa catgttt  
21541 accgggtgcac cacttt  
21601 tgaggggggtt ttt  
21661 att  
21721 gcaaccctgtt cataccctttt aaggatggta ttatgttgc tggccacagag aatcaaat

## FIGURE 8 H

## FIGURE 8 I

**FIGURE 8 J**

28021 gttggcgcgtatagcttagg ttttgttacc ttcatgaagg tcaccaaact gtcgcattta  
28081 gagacgtact ttttgttta aataaacgaa caaattaaaa tgtctgataa tggaccccaa  
28141 tcaaaaccaac gtatgtcccc cccgattaca ttggggac ccacagatc aactgacaat  
28201 aaccagaatg gaggacgaa tggggcaagg cccaaacagc gccgacccca aggtttaccc  
28261 aataatactg cgtctgtt cacagcttc actcagcatg gcaaggagga acttagattc  
28321 cctcgaggcc agggcggtcc aatcaacacc aatagttgtc cagatgacca aatggctac  
28381 taccaagag ctacccgacg agtttgtt ggtgacggca aatgaaaga gtcagccccc  
28441 agatggtaact ttattacct aggaactggc ccagaagctt cacttcccta cggcgctaac  
28501 aaagaaggca tcgtatgggt tgcacttgag ggacccgtt atacacccaa agaccacatt  
28561 ggcacccgca atcctaataa caatgtgcc accgtgtt aacttccca aggaacaaca  
28621 ttgcacaaag gcttctacgc agagggaaagc agaggcggca gtcaagcctc ttctcgctcc  
28681 tcatcacgtt gtcgcggtaa ttcaagaaaat tcaacttctg cgacgacttag gggaaatct  
28741 cctgtcgaa tggttgttggg aggttgtt gactgcccctg cgctattgtc gctagacaga  
28801 ttgaaccagg ttgagagcaa agtttgttggt aaaggccaaac aacaacaagg cccaaactgtc  
28861 actaagaaaat ctgtctgtga ggcatactaaa aacgcctcgcc aaaaactgtac tgccacaaa  
28921 cagtacaacg tcaactcaacg atttggggaga cgtgttcccg aacaaacccaa aggaaatttc  
28981 ggggaccaag acctaatacgt acaaggaact gattacaacat ttggccgca aattgcacaa  
29041 ttgtccaa gtgcctctgc atttttgttga atgcacgc ttggcatgga agtcacaccc  
29101 tcgggaacat ggctgaccta tcatggagcc attaaaattgg atgacaaaaga tccacaattc  
29161 aaagacaacg tcaactgtc gaacaagcac attgacgcatt aaaaaacattt cccaccaaca  
29221 gagcctaaaa aggacaaaaaa gaaaaaagact gatgaagctc agcccttgc gcagagacaa  
29281 aagaaggcgc ccactgtgac ttcttctctt gggcgtgaca tggatgtt atttcccgacaa  
29341 ctccaaattt ccatgagttgg agtttgtcgt gatcaactc aggcataaaac actcatgtat  
29401 accacacaag gcagatgggc tatgtaaacg ttgtccaaat tccgtttacg atacatagtc  
29461 tactttgtc cagaatgaat tctcgtaact aacagcaca agtaggttta gttaaacttta  
29521 attcacata gcaatcttta atcaatgtgt aacatttaggg aggacttgaa agagccacca  
29581 cattttcatc gaggccacgc ggaggtacgt cgagggtaca gtgaaataatg cttagggagag  
29641 ctgccttatat ggaagagccca taatgtgtaa aatattttt agtagtgta tccccatgt  
29701 attttaaatg ctctttagga gaatgacaaa aaaaaaaaaaaa aaaaaaaaaaaa a

**FIGURE 9A**

1 ctacccaggaa aagggcaacc aacctcgatc tctttagat ctgttctcta aacgaacttt  
61 aaaatctgtg tagctgtcgcc tcggctgcata gccttagtgca cctacgcagt ataaaacaata  
121 ataaattttta ctgtcggtga caagaaacgaa gtaactcgtc cctcttctgc agactgctta  
181 cggtttcgtc cgtgttgcag tcgatcatca gcatacctag gttcgtccg ggtgtgaccg  
241 aaaggtaaga tggagagcct tgttcttggt gtcaacgaga aaacacacgt ccaactcagt  
301 ttgcctgtcc ttcaaggtag agacgtgcta gtgcgtggct tcgggactc tggaaagag  
361 gcccatacg aggcacgtga acacctcaa aatggcactt gtggcttagt agagctggaa  
421 aaaggcgtac tgccccagct tgaacagccc tatgtttca taaaacgttc tgatgcctt  
481 agcacaatc acggccacaa ggtcggttag ctgttgcag aatggacgg cattcagtac  
541 ggtcgtagcg gtataacact gggagtaactc gtgccacatg tggcgaaac  
601 taccgcatacg ttcttctcg taagaacggt aataaggag cccgtggtca tagctatggc  
661 atcgatctaa agtcttatga ctttagtgc gagcttggca ctgatccat tgaaggattat  
721 gaacaaaact ggaacactaa gcatggcagt ggtgcactcc gtgaactcac  
781 aatggaggtg cgtcactcg ctatgtcgac aacaatttct tggccac  
841 cttgattgca tcaaaagattt ctcgcacgc gcgggcaagt tggccac  
901 caacttgatt acatcgagtc gaagagaggt gtctactgct gccgtgacca  
961 attgccttgt tcactgagcg ctctgataag agctacgagc tgagcatgaa  
1021 aagagtgcca agaaaatttga cactttcaaa ggggaatgcc accagacacc  
1081 aactcaaaaag tcaaagtcat tcaaccacgt gttaaaaaga  
1141 gggcgatatac gctctgtgt ccctgttgc tctccacagg  
1201 tctaccttga tgaaatgtaa tcattgcgt gaagtttcat  
1261 aaagccactt gtgaacatttgc tggactgaa aatttagtta  
1321 gggtaatcact ctactaatgc ttagtggaaa atgcatgtc  
1381 attggacctg agcatagtg tgcagattt cacaaccact  
1441 cgcaaggaggag gttagacttag atgaaaaatgg  
1501 aataagcggt cctactgggt tggactgtgc agtctgtata  
1561 attactgggt acaatgtgga gaccttgaat gaggatctcc  
1621 cgtgttaaca ttaacatttt tggcgattt catttgaatg  
1681 gcatcttttct ctgcttctac aagtgcctt attgacacta  
1741 tctttcaaaa ccattgttga gtcctgcggg aactataaaag  
1801 aaagggtctt ggaacatttgg acaacagaga tcaatgg  
1861 tcacaggctg ctgggttat cagatcaatt tttgcgcga  
1921 tcaattcttgc atttgcaaaag agcagctgc accatacttgc  
1981 ttacgtcttgc tcgacggccat gtttataact tcaacacttgc  
2041 atggcatatgc taactgggtt cttgtacaa cagacttctc  
2101 ggcactactg ttgaaaaactt caggcctatc ttgaatgg  
2161 ggagttgaat ttctcaaggaa tgcttggag attctcaat  
2221 gacatcgatc agggtcaaat acaggttgc tcaagataaca  
2281 ttcatgtatc ttgttacaaa ggcactcgaa atgtgcattt  
2341 gcaaagggtgc gatcactcaa cttagggtaa gtcttcatcg  
2401 cgtcgtatc tacgtggcaaa ggagcagctg caactactca  
2461 gaagtaaccc ttcttgcagg tgattcacat gacacagtg  
2521 ctcaagaacg gtgaactcgaa agcactcgag acggccgttgc  
2581 atcggtggca caccaggctg tgtaaatggc ctcatgtct  
2641 caataactcgat cattgtctcc tggttactg gctacaaaca  
2701 ggtgcacccaa ttaaagggtt aacctttga gaagataactg  
2761 aagaatgtga gaatcacatt tgagcttgc gAACGTGTTG  
2821 tgctctgtct acactgttga atccggatc gaaagtactg  
2881 gaggctgttgc tgaagacttt acaaccagtt tctgatctcc  
2941 cttgtatgttgc ggagttgtac tacatttcac ttatttgc  
3001 tcatcactgtatc tgatgttgc cttttaccc ccagatgagg  
3061 tgtgagggaa aagaaatttga tggaaacctgtt gaaatgtatc  
3121 caaggcttcc ctctggat tgggtccca gctacaaacag  
3181 gaggaagact ggctggatga tactactgtg caatcagaga  
3241 acacctgtatc aaccaggatc tcaatgttact ggttattt  
3301 attaaatgttgc ttgacatcgatc taaggaggca caaatgtct  
3361 gctgctaaaca tacacctgaa acatgggttgc ggtttagc  
3421 aatgggtgcca tgcaaaaggaa ggtgtatgt tacattaagc  
3481 ggaggggtctt gtttgcattc tggacataat ctgtcttgc  
3541 cctaaccatcatac atgcaggatgc ggacatccat ctttcaagg  
3601 tcacaggatc tcttacttgc accattgttgc tcagcaggca

**FIGURE 9B**

3661	cagtcttac	aagtgtgcgt	gcagacgggt	cgtacacagg	tttatattgc	agtcaatgac
3721	aaagctctt	atgaggcaggt	tgtcatggat	tatcttgata	acctgaagcc	tagagtggaa
3781	gcacctaaac	aagaggagcc	accaaacaca	gaagattcca	aaactgagga	gaaatctgtc
3841	gtacagaagc	ctgtcgatgt	gaaggccaaaa	attaaggcct	gcattgatga	ggttaccaca
3901	acactggaaag	aaactaagg	tcttaccaat	aagttactct	tgtttgctga	tatcaatgggt
3961	aagcttacc	atgattctca	gaacatgctt	agaggtgaag	atatgtctt	ccttgagaag
4021	gatgcacctt	acatggtagg	tgtatgttac	actagtgtg	atatcacttg	tgttgtaata
4081	ccctccaaaa	aggctgggg	cactactgag	atgctctaa	gagctttgaa	gaaagtgcga
4141	gttgcgttgt	atataaccac	gtaccctgga	caaggatgtg	ctggttatac	acttgaggaa
4201	gctaagactg	ctcttaagaa	atgcaaatct	gcattttatg	tactaccttc	agaagcacct
4261	aatgctaagg	aagagattt	aggaactgt	tcctggattt	tgagagaaaat	gcttgctcat
4321	gctgaagaga	caagaaaaatt	aatgcctata	tgcatggatg	ttagagccat	aatggcaacc
4381	atccaaacgta	agtataaaagg	aattaaaatt	caagaggcga	tcgttgcata	tgggtgtccga
4441	ttcttctttt	atactagtaa	agaggctgta	gcttcttata	ttacgaagct	gaactctcta
4501	aatgagccgc	ttgtcacaat	gccatttgg	tatgtgacac	atgtttttaa	tcttgaagag
4561	gctgcgcgt	gtatgcgttc	tcttaaagct	cctgcccgt	tgtcgtatc	atcaccagat
4621	gctgttacta	catataatgg	atacactact	tcgtcatcaa	agacatctga	ggagcacttt
4681	gtagaaacag	tttctttg	tggcttac	agagatttgt	cctattcagg	acagcgtaca
4741	gagttaggtg	ttgaatttct	taagcgtgg	gacaaaattt	tgtaccacac	tctggagagc
4801	cccgctgagt	ttcatcttga	cggtgagg	cttctactt	acaactaaa	gagtcttta
4861	tccctgcggg	aggttaagac	tataaaagt	ttcacaactg	tggacaacac	taatctccac
4921	acacagctt	tggatatgtc	tatgacat	ggacagcagt	ttggtccaac	atacttgat
4981	gggtgcgtat	ttacaaaaat	taaacctat	gtaaatcatg	aggtaagac	tttcttgt
5041	ctaccttagt	atgacacat	acgtagt	gctttcgagt	actaccatac	tcttgcgtat
5101	agtttctt	gttaggtat	gtctgttta	aaccacacaa	agaaatggaa	atttcttcaa
5161	gttgggtt	taacttcaat	taaatgggt	gataacaat	gttatttgc	tagtgtttt
5221	ttagca	tacagcttga	agtcaaattt	aatgcacca	cactcaaga	ggcttattat
5281	agagcccg	ctgggtatgc	tgctactt	tgtgcact	tactcgctt	cagaataaa
5341	actgttggcg	agcttgggt	tgtcagagaa	actatgaccc	atcttctaca	gcatgctaat
5401	ttggatctg	caaagcgagt	tcttaatgt	gtgtgtaaac	attgttgtca	gaaaactact
5461	accttaacgg	gtgtagaagc	tgtgatgtat	atgggtactc	tatcttatg	taatcttaag
5521	acagggttt	ccattccat	tgtgtgtgg	cgtgatgta	cacaatatct	agtacaacaa
5581	gagtcttctt	ttgttatgat	gtctgcacca	cctgctgagt	ataaaattaca	gcaaggatca
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5701	gctaaggaga	ccctctatcg	tattgacgga	gctcaccta	caaagatgtc	agagtacaaa
5761	ggaccagtga	ctgatgttt	ctacaaggaa	acatcttaca	ctacaaccat	caagcctgt
5821	tcgtataaac	tcgatggagt	tacttacaca	gagattgaac	caaaatttgg	tgggtattat
5881	aaaaaggata	atgcttacta	tacagagcag	cctatagacc	ttgtaccaac	tcaaccatta
5941	ccaaatgcga	gttttgataa	tttcaaactc	acatgttct	acacaaaatt	tgctgtat
6001	ttaaatcaaa	tgacaggctt	cacaaagcca	gcttcacag	agctatctgt	cacattcttc
6061	ccagacttga	atggcgatgt	agtggctt	gactatagac	actattcagc	gagtttcaag
6121	aaagggtcta	aattactgca	taagccaatt	gttggcaca	ttaaccaggc	tacaaccaag
6181	acaacgttca	aaccaaacac	ttgggttta	cgttgcattt	ggagtacaaa	gccagtagat
6241	acttcaa	catttgaat	tctgcgtat	gaagacacac	aaggaaatgg	caatctgt
6301	tgtgaaatgc	aacaacccac	ctctgaagaa	gttagtgaaa	atcttccat	acagaaggaa
6361	gtcatagat	gtgacgttg	aactaccgaa	gtttaggca	atgtcatact	taaaccatca
6421	gatgaagg	ttaaagtaac	acaagagtt	ggtcatgagg	atcttatggc	tgcttatgt
6481	gaaaacacaa	gcattaccat	taagaaacct	aatgagctt	cactagcatt	aggtttaaaa
6541	acaattgcca	ctcatgttat	tgctcaatt	aatagtgtt	cttggagtaa	aattttggct
6601	tatgtcaaac	cattttagg	acaagcagca	attacaacat	caaatttgcgc	taagagatta
6661	gcacaacgt	tgtttaacaa	ttatattgcct	tatgtgtt	cattattgtt	ccaatttgcgt
6721	acttttacta	aaagtaccaa	ttctagaatt	agagcttac	tacccataac	tattgctaaa
6781	aatagtgtt	agagtgttgc	taaattatgt	ttggatgccc	gcattaaatta	tgtgaagtca
6841	cccaaatttt	ctaaatttgg	cacaatcgct	atgtggctat	tgttgcatt	tatttgcctt
6901	ggttctctaa	tctgtgttac	tgctgtttt	ggtgtactct	tatctaattt	tgggtgtccct
6961	tcttattgt	atggcgat	agaattgtat	cttattgcgt	ctaacgttac	tactatggat
7021	ttctgtgtt	gttcttttcc	ttgcagcatt	tgtttaagtg	gattagactc	ccttgattct
7081	tatccagctc	ttgaaaccat	tcagtgacg	atttcatgt	acaagctaga	cttgacaaat
7141	ttaggtctgg	ccgctgagtg	ggtttggca	tatatgtt	tcacaaaattt	cttttatttta
7201	ttaggtcttt	cagctataat	gcagtggtt	tttggctatt	ttgtcgtatc	tttcatcagc
7261	aattcttggc	tcatgtgg	tatcattat	attgtacaaa	tggcaccctgt	ttctgcaatg
7321	gttaggtatgt	acatcttctt	tgcttcttc	tactacat	ggaagagct	tgttcatatc

**FIGURE 9C**

7381 atggatggtt gcacctcttc gacttgcata atgtgctata agcgcaatcg tgccacacgc  
7441 gttgagtgtta caactattgt taatggcatg aagagatctt tctatgtcta tgcaaattggaa  
7501 ggccgtggct tctgcaagac tcacaattgg aattgtctca attgtgacac attttgcact  
7561 ggttagtacat tcattagtga tgaagttgtc cgtgatttgt cactccagtt taaaagaccca  
7621 atcaacccta ctgaccagtc atcgatattt gttgatagtg ttgctgtgaa aaatggcgccc  
7681 cttcacctct actttgacaa ctttgggtcaa aagacctatg agagacatcc tctctcccat  
7741 tttgtcaatt tagacaattt gagagctaac aacactaaag gttcaactgccc tattaatgtc  
7801 atagttttg atggcaagtc caaatgcgac gagtctgtt ctaagtctgc ttctgtgtac  
7861 tacagtcagc tgatgtgcca acatttctg ttgcttgacc aagctcttgt atcagacgtt  
7921 ggagatagta ctgaagttt cgttaagatg tttgtatgctt atgtcgacac ctttcagca  
7981 acttttagt ttcctatgga aaaacttaag gcacttggt ctacagctca cagcgagtt  
8041 gcaaagggtg tagctttaga tggtgtcctt tctacattcg tgtcagctgc cccgacaagg  
8101 gttgttgata ccgatgttga cacaaggat gttattgaat gtctcaaact ttcacatcac  
8161 tctgacttag aagtgcacagg tgacagttt aacaatttca tgctcaccta taataagg  
8221 gaaaacatga cgcccagaga tcttggcgca tattttactgact gtaatgcaag gcatatcaat  
8281 gccccagtag caaaaagtca caatgttca ctcattctgga atgtaaaaga ctacatgtct  
8341 ttatctgaa acgtgcgtaa acaaatttgt agtgcgttca agaagaacaa cataccc  
8401 agactaactt gtgtacaaac tagacagggtt gtcaatgtca taactactaa aatctcact  
8461 aagggtggta agattgttag tacttggttt aaacttatgc ttaaggccac attattgtgc  
8521 gttctgtgt cattggttt tttatctgtt atgcccgtac atacattgtc aatccatgtat  
8581 ggttacacaa atgaaatcat tggttacaaa gcaatttgcattt catttgcatttgc  
8641 atttctactg atgattgttt tgcaaaataaa catgctggtt ttgacgcatttgc  
8701 cgtgggtggtt catacaaaaaa tgacaaaaggc tgccctgttag tagctgttat cattacaaga  
8761 gagattgggtt tcatagtgcc tggcttaccg ggtactgtgc tgagagcaat caatggtgac  
8821 ttcttgattt ttctacctcg tggtttttagt gctgttggca acatttgcatttgc  
8881 aaactcattt agtatagtga ttttgctacc tctgcttgcg ttcttgctgc tgagtgtaca  
8941 atttttaagg atgtatggg caaacctgtg ccatattgtt atgacactaa ttgtcttagag  
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9121 gctgagttact gtagacatgg ttttgctacc tctgcttgcg ttcttgctgc tgagtgtaca  
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9481 ctggccggag tctactcgtt ctttacttgc tacttgcattt tctatttcac caatgtatgtt  
9541 tcattcttgg ctcacccatca atggtttgcattt atgtttctc ttatttgcc  
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9781 cttacacagt ataacacagta tcttgcatttataacaatgtt acaagtattt cagtgagcc  
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10021 gtacaagtaa cctgtggac tacaactt aatggattgt ggttggatgtacagatata  
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10201 attggccattt ctatgcatttgc tttgtctgtt aggtttaaag ttgatacttca tacccttaag  
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10381 ggttctttcc ttaatggatc atgttggatgtt gttgggttttta acattgatttgc  
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10561 acaaccatcaa cattaaatgtt tttggcatgg ctgtatgttgc ctgttatcaat  
10621 tggtttctta atagatttgc cactacttgc aatgacttta accttgcggc aatgaagtac  
10681 aactatgaac ctttgacaca agatcatgtt gacatatttgc gacatcttgc tgctcaaa  
10741 ggaattggcg tcttagatat gttgtctgtt ttgaaagagc tgctgcagaa tggtatgaat  
10801 ggtcgatcta tccttggtag cactatttttgc gaaatgttgc gacatgttca taccaccatt  
10861 agacaatgtt ctgggtttac cttccaaagggtt aagttcaaga aaattgtttaa  
10921 cattggatgc ttttacttttgc cttgacatca ctattgttgc ttttgcatttgc  
10981 tcactgtttt tctttgttgc gagaatgttgc ttacttgcatttgc tattatggca  
11041 attgtgtcat gtgtatgttgc gttgtttaa gataacccatca ttttgcatttgc  
11101 atgtgttgcatttgc gttgttgcatttgc ctttgcatttgc ttttgcatttgc

**FIGURE 9D**

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11101 ttaccttctc ttgcaacagt tgcttacttt aatatggct acatgcctgc tagctgggtg
11161 atgcgttatca tgacatggct tgaattggct gacactagct tgcgtggta taggcttaag
11221 gattgtgtta tgtatgttc agcttagtt tgcttattc tcatacgac tcgcactgtt
11281 tatgatgatg ctgctagacg tgttggaca ctgatgaatg tcattacact tgtttacaaa
11341 gtctactatg gtaatgctt agataaagct attccatgt gggcttagt tatttctgtt
11401 acctctaact attctgggtt cgttacgact atcatgttt tagctagagc tatagtgtt
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11521 cttgttattt gtttcttagg ctattgtgc tgctgtact ttggccttt ctgttactc
11581 aaccgttact tcaggcttac tcttgggtt tatgactact tggctctac acaagaattt
11641 aggtatatga actcccaggc gctttgcct cctaagagta gtattgtac tttcaagctt
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12241 aagaggcga aagtaactag tgctatgca acaatgtct tcactatgt taggaagctt
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12361 atcataccat tgactacagc agccaaactc atgggttttgc tccctgatta tggtagctac
12421 aagaacactt gtgtatggtaa caccttaca tgcgtatctg cactctggaa aatccagcaa
12481 gttgtgtatg cggatagcaa gattgttcaa cttagtggaa ttaacatggaa caattcacca
12541 aattttggctt ggccttattat tggtagctatg ctaagagcca actcagctgt taaaactacag
12601 aataatgaac tgagtccatg agcactacga cagatgtctt gtgcggctgg taccacacaa
12661 acagcttgc tgcgtatgacaa tgcacttgcc tactataaca attcgaaggg aggtagttt
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12781 ggtacaggta caatttacac agaactggaa ccaccttgc ggtttgttac agacacacca
12841 aaaggcccta aagtgaaata ctgttacttc atcaaaggct taaacaacct aaatagaggt
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13261 gtgggttttta cacttagaaa cacagtctgt accgtctgcg gaatgtggaa aggttatggc
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14161 atttgctgaa atatgatttt acggaagaga gactttgtctt cttcgaccgt tattttaaat
14221 attgggacca gacataccat cccaaattgtt ttaactgttt ggtatgtatgg tgcgtatcc
14281 attgtcaaa cttaatgtt tattttctt cttgtttcc acctacaatgtt ttggaccac
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14401 gtgaggtagg agtcgtatcat aatcaggatg taaacttaca tagctcgatgtt ctcagttca
14461 aggaactttt agtgtatgtt gctgatccag ctatgcatac agcttctggc aatttattgc
14521 tagataaacg cactacatgc ttttcgtatg ctgcactaaca aaacaatgtt gctttcaaa
14581 ctgtcaaacc cggtaatttt aataaagact tttatgactt tgctgtgtct aaaggttct
14641 ttaaggaagg aagttctgtt gaactaaaac acttcttctt tgctcaggat ggcaacgctg
14701 ctatcgtga ttatgactat tattgttata atctgcacaa aatgtgtatg atcagacaac
14761 tccttattcgt agttgaatg ttgtataat actttgtattt tgatgtatgtt ggctgtat

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**FIGURE 9E**

14821 atgccaacca agtaatcggtt aacaatctgg ataaaatcgc tggtttccca tttataaaat  
14881 ggggttaaggc tagactttat tatgactcaa ttagtttatga ggatcaagat gcactttcg  
14941 cgtatactaa gcgttaatgtc atccctacta taactcaa ataatctaag tatgccatta  
15001 gtgcaaagaa tagagctcgc accgtagctg gtgtctctat ctgttagtact atgacaataa  
15061 gacagttca tcagaaattt ttgaagtc当地 tagccgccc tagaggagct actgtggtaa  
15121 ttgaaacaag caagtttac ggtggctggc ataataatgtt aaaaactgtt tacagtgtat  
15181 tagaaactcc acacctttag ggttggatt atccaaaatg tgacagagcc atgcctaaca  
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15961 ttacaaaaca tcctaatcag gatgtatgtc atgtcttca ctgttattta caatacattt  
16021 gaaagttca tgatgagttt actggccaca tttggatcgtt atgcttgcata atgctaactt  
16081 atgataaacac ctcacggtagt tggaaacctg agtttatgtc ggctatgtac acaccacata  
16141 cagtcttgcg ggctgttaggt gcttgcgtat tgcgtcaattt cttcctatgtt gcaagtgcgt  
16201 gtgcctgtat taggagacca tctgttaatc cctatgtttt gatgttgcataatc  
16261 catcacacaa attagtgtt gatcttaggat gatgtgactt ttattgcaag tcacataagc  
16321 tcactgatgt gacacaactg tgcgtcaatg gtcagggttt tggtttatac aaaaacacat  
16381 ctcccattag ttttccatta actgacttca atgcgtatgc aacatgtgt tggactaatt  
16441 gtgttaggcag tgacaatgtc aacacttgcg tgcagagact caagctttc gcagcagaaa  
16501 ctggcgatta catacttgcg cacttgcg acatggatc tgcgtatgc tattgcccact  
16561 cgctcaaaagc cactgaggaa tactctctga cagagaattt gatgttgcataatc  
16621 acagaaacta tgcgttactt ggttaccgtg taactaaaaa tagttaagta cagattggag  
16681 agtacaccct tggaaaaggat gactatgtt gatgtgttgcgtt atgctgttgc  
16741 acaagttgaa tgggtgtat tactttgtt tgacatctca cactgtatgc  
16801 cacctactt agtgcacaa ggcactatg tgagaatttcc ccaacactca  
16861 acatctcaga tgagttttct agcaatgtt gaaattatca aaggtcgcc  
16921 actctacact ccaaggacca cctgttactg gtaagagtca tttgcccatt  
16981 tctattaccc atctgctcgc atagtgtata cggcatgctc tcatgcagct  
17041 tatgtgaaaa ggcattaaaaa tatttgc当地 tagataatgt tagtagaattc  
17101 gtgcgcgctg agagtgtttt gataaattca aagtgaattt aacactagaa  
17161 tctgcactgt aaatgcatttgc ccagaaacaa ctgctgacat  
17221 ctatggctac taattatgac ttgagtgtt gcaatgttag  
17281 tctatattgg cgatctgtc caattaccag cccccccgcac  
17341 tagaaccaga atattttat tcatgtgc当地 gactttagaa  
17401 tccttggAAC ttgtcgccgt tgcgttgc当地 aaattgttgc  
17461 atgacaataa gctaaaagca cacaaggaga agtcagctca  
17521 aagggttctg tacacatgtt ctttcatctg caatcaacag  
17581 gagaattttt tacacgcaat cctgttggaa gaaaaggctgt  
17641 cacagaacgc tgcgttca aaaaatcttgc gattgc当地  
17701 agggttctg atatgactt gtc当地tattca cacaactac  
17761 atgtcaaccg ttcaatgtg gctatcaca gggcaaaaat  
17821 ctgatagaga tctttatgac aaaaactgc当地 ttacaagtct  
17881 tggctacatt acaaggacaa aatgtactg gacttttaa  
18001 ctggcttca tccttacacag gcacctacac acctcagcgt  
18061 aaggattatg tggtgacata ccaggcatac caaaggacat  
18121 ctatgtggg ttcaaaaatg aattaccaag tcaatgttca  
18181 gcgagaagc tattcgtagc gttcgtgc当地 ggattggctt  
18241 caactagaga tgctgtgggt actaaccac ctc当地tccagct  
18301 acttagtagc tgc当地taccgact ggttatgttgc  
18361 ttaatgc当地 acctccacca ggtgaccagg taaaacatct  
18421 gcttgcctg gaatgttagt gcttataaga tagtacaat  
18481 gattgtcaga cagactcgat ttc当地tccctt gggcgc当地

**FIGURE 9F**

18541	agtactttgt	caagattgga	cctgaaaagaa	cgtgttgc	gtgtgacaaa	cgtgcaactt
18601	gctttctac	ttcatcagat	acttatgcct	gctggaatca	ttctgtgggt	tttgactatg
18661	tctataaccc	attatgatt	gatggcagc	agtggggctt	tacggtaac	cttcagagta
18721	accatgacca	acattgccag	gtacatggaa	atgcacatgt	ggctagttgt	gatgctatca
18781	tgactagatg	tttagcagtc	catgagtgc	ttgttaagcg	cgttgattgg	tctgttgaat
18841	accctattat	aggagatgaa	ctgagggtt	attctgcgtt	cagaaaagta	caacacatgg
18901	ttgtgaagtc	tgcattgctt	gctgataagt	ttccagttct	tcatgacatt	gaaaatccaa
18961	aggctatcaa	gtgtgtgc	caggctgaag	tagaatgaa	gttctacgat	gctcagccat
19021	gttagtacaa	agcttacaaa	atagaggagc	tcttcttattc	ttatgctaca	catcacata
19081	aattcaactga	ttgtgtttgt	ttgtttggaa	attgtaacgt	tgatcggtac	ccagccaatg
19141	caatttgtgt	taggtttgac	acaagagtct	tgtcaaactt	gaacttacca	ggctgtgtat
19201	gtggtagttt	gtatgtgaat	aagcatgcat	tccacactcc	agcttgcgt	aaaagtgcgt
19261	ttactaattt	aaagcaattt	ccttctttt	actattctga	tagtcctgt	gagtctcatg
19321	gcaaacaagt	agtgtcggt	attgattatg	ttccactcaa	atctgctacg	tgtattacac
19381	gatgcaattt	aggtgggtgt	gtttgcagac	accatgcaaa	tgagtaccga	cagtaattgg
19441	atgcatataa	tatgatgatt	tctgctggat	ttagcctatg	gattacaaa	caatttgata
19501	cttataaccc	gtggaataca	tttaccaggt	tacagagtt	agaaaatgtg	gcttataatg
19561	ttgttaataa	aggacacttt	gatggacacg	ccggcgaagc	acctgtttcc	atcattaata
19621	atgcttta	cacaaaggta	gatgttattt	atgtggagat	cttggaaaat	aagacaacac
19681	ttccctttaa	ttgtgcattt	gagctttggg	ctaagcgtaa	cattaaacca	gtgccagaga
19741	ttaagatact	caataattt	gggtttgata	tcgctgctaa	tactgtatc	tgggactaca
19801	aaagagaagc	cccagcacat	gtatctacaa	taggtgtctg	cacaatgact	gacattgcca
19861	agaaacctac	tgagagtgt	tgttcttcac	ttactgtctt	gtttgatgtt	agagtgtgaag
19921	gacaggtaga	cctttttttaga	aacccccgtt	atgggttttt	aataacagaa	gttcaagtca
19981	aaggcttaac	accttcaaaag	ggaccaggcac	aagctagcgt	caatggagtc	acattaaattt
20041	gagaatcagt	aaaaacacag	ttaactact	ttaagaaagt	agacggcatt	attcaacagt
20101	tgcctgaaac	ctactttact	cagacagag	acttagagga	tttaagcccc	agatcacaaa
20161	tggaaactga	ctttctcgag	ctcgctatgg	atgaattcat	acagcgatat	aagctcgagg
20221	gctatgcctt	cgaacacatc	gtttatggag	atttcagtc	tggacaactt	ggcggtttc
20281	attnaatgt	aggcttagcc	aagcgctac	aagattcacc	acttaaattt	gaggattta
20341	tccctatgga	cagcacagt	aaaaattact	tcataacaga	tgcgcaaaaca	gttcatcaa
20401	aatgtgtgt	ttctgtgatt	gatctttac	ttgatgactt	tgtcgagata	ataaagtac
20461	aagatttgc	agtgatattca	aaagtggta	aggttacaat	tgactatgt	gaaatttcat
20521	tcatgcttt	gtgttaaggat	ggacatgtt	aaaccttcta	cccaaaacta	caagcaagtc
20581	aagcgtggca	accaggttt	gcgatgccta	acttgcataa	gatgcaaaaga	atgcttctt
20641	aaaagtgtga	ctttcagaat	tatgtgaaa	atgctgttat	acccaaagga	ataatgatga
20701	atgtcgcaaa	gtataactcaa	ctgtgtcaat	acttaaatac	acttacttta	gctgtaccct
20761	acaacatgag	agtttattcac	tttggtgc	gctctgataa	aggagttgca	ccaggtacag
20821	ctgtgctcag	acaatggtt	ccaaactggca	cactacttgt	cgattcagat	cttaatgact
20881	tcgtctccga	cgcagattt	actttaattt	gagactgtgc	aacagttacat	acggctataa
20941	aatgggacct	tattatttgc	gatatgtatg	acccttaggac	caaacatgt	acaaaagaga
21001	atgactctaa	agaagggtt	ttcacttatac	tgtgtggatt	tataaagcaa	aaactagccc
21061	tgggtgggtt	tatagctgt	aagataacag	agcattcttgc	gaatgctgac	ctttacaagc
21121	ttatgggcca	tttctctatgg	tggacagctt	ttgttacaaa	tgtaaatgca	tcatcatcg
21181	aagcattttt	attggggct	aactatcttgc	gcaagccgaa	ggaacaaattt	gatggctata
21241	ccatgcatgc	taactacatt	ttctggagga	acacaaatcc	tatccagtt	tcttcattt
21301	cactcttgc	catgacaaa	tttctcttta	aattaagagg	aactgtgt	atgtcttta
21361	aggagaatca	aatcaatgt	atgattttt	ctttcttgc	aaaaggtagg	cttacatcata
21421	gagaaaacaa	cagagttgt	gttcaagtg	atattcttgt	taacaactaa	acgaacatgt
21481	ttatatttctt	attatttctt	actctcaacta	gtggtagtgc	ctttgaccgg	tgcaccactt
21541	ttgatgatgt	tcaagctctt	aattacactc	aacataactt	atctatgagg	gggggttact
21601	atccctgatga	attttttttaga	tcagacactc	tttattttac	tcaggattta	tttcttccat
21661	tttattctaa	ttgttacagg	tttcataacta	ttaatcatac	gtttgacaac	cctgtcatac
21721	cttttaagga	ttgttattt	tttgcgttca	cagagaaatc	aatgttgc	cgtgggttgg
21781	tttttgggtt	taccatgaa	aacaagtcac	agtcgggtat	tattattaac	aattctacta
21841	atgttggat	acgagcatgt	aacttgc	tgtgtgacaa	ccctttctt	gctgttctt
21901	aaccatggg	tacacagaca	catactatga	tattcgataa	tgcatttaat	tgcactttcg
21961	agtacatatac	tgatgcctt	tcgcttgc	tttcagaaaa	gtcaggtat	ttaaactacat
22021	tacgagagtt	tgtgtttaaa	aataaagatg	ggtttcttca	tgtttataag	ggctatcaac
22081	ctatagatgt	agttcggtat	ctaccctctg	gttttaacac	tttggaaaccc	atttttaagt
22141	tgccttctgg	tattaacatt	acaattttt	gagccattt	tacagcctt	tcaccctgctc
22201	aagacacttgc	gggcacgtca	gctgcagcct	attttgc	ctatttaaag	ccaaactacat

**FIGURE 9G**

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22261 ttatgctcaa gtagatgaa aatggtacaa tcacagatgc tttgtattgt tctcaaaatc
22321 cacttgctga actcaaatgc tctgttaaga gctttgagat tgacaaaggaa attaccaga
22381 cctctaattt cagggttgg ccctcaggag atgttgtgag attcccaat attacaact
22441 tggcctttt tggagaggtt ttaatgtcta ctaaattccc ttctgtctat gcatgggaga
22501 gaaaaaaaaat ttctaatgtt gttgtgatt actctgtgtct ctaacaactca acatttttt
22561 caaccttaa gtgctatgac gtttctgcca ctaagtggaa tgatctttgc ttctccaatg
22621 tctatgcaga ttctttgtt gtcaggagat atgtgtaa acaaatacgcc ccaggacaaa
22681 ctgggtttat tgctgatttt aattataat tgccagatga ttcatgggt tggccttg
22741 ctggaaatac taggaacatt gatgtactt caactggtaa ttataattt aaataatagg
22801 atcttagaca tggcaagcctt aggcctttt agagagacat atctaattgtt ctttctccc
22861 ctgatggcaa accttgcacc ccacctgctc ttaattgtt ttggccatta aatgattatg
22921 gttttacac cactactggc attggctacc aaccttacag agttgttagt ctttctttt
22981 aactttaaa tgcaccggcc acgggttggc gacccaaattt atccactgac cttattaa
23041 accagtgtgt caattttat ttaatggac tcactggta tgggtgtta actccttctt
23101 caaagagatt tcaaccattt caacaattt gccgtatgt ttctgatttc actgattccg
23161 ttcgagatcc taaaacatctt gaaatattttag acatttcacc ttgtctttt ggggtgtaa
23221 gtgtattttt acctggaaaca aatgttcat ctgaagtgc ttttttatata caagatgtt
23281 actgcactga tggcttctaca gcaattcatg cagatcaact cacaccagct tggcgcatat
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23461 cagttttttt attacgttagt actagccaa aatctattgt ggcttataact atgtctttt
23521 gtgctgatag tcaatttgc tactctaata acaccatgc tatacctact aacttttcaa
23581 ttagcatttt tacagaagta atgcctgtt ctatggtaa aaccccgtaa gattgtataa
23641 tgcacatctg cggagatctt actgaatgtt ctaatttgc tcttccatat ggtagctttt
23701 gcacacaactt aaatcgta ctctcaggta ttgtgtgtt acaggatgc aacacacgtg
23761 aagtgttcgc tcaagtcaaa caaatgtaca aaaccccaac ttgtttttt tttgtgtttt
23821 ttaatttttca acaaataattt cctgaccctt taaagccaa taagaggctt ttattttaggg
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24061 gtactgccac tgctggatgg acatttggc ctggcgctgc tcttccaaataa ctttttgcta
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24241 caacatcaac tgcattgggc aagctgcaag acgttgcattt ccagaatgtt caagcattaa
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24661 caatttgtca tgaaggcaaa gcatacttcc ttcgtgttcaagg ttgtttttgtt ttaatggca
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24901 catcaccaga ttgtgtatctt ggcgacattt caggcatcaat cgttctgttgc gtcaacattt
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25921 tggatttttttgc ttgtgttctt gtttttttttgc ttgtgttctt gtcgtgttgc gtttttttttgc atgactatgtt

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FIGURE 9H

25981	gcaaatacac	acaatcgacg	gctttcagg	agttgcta	atccaa	tta
26041	tgtgagccg	acgacgacta	ctagcgtgcc	tttgcgtt	caaga	aagt
26101	tatgtactca	ttcggttcgg	aagaacagg	tacgttaata	gttaat	agcg
26161	tcttgcttgc	gtggatttct	tgctgtcac	actagccat	cttactgcgc	ttcgatgtg
26221	tgcgtactgc	tgcaatatttgc	ttaacgtgag	tttagtaaaa	ccaacgg	ttt
26281	gcgtgtaaa	aatctgaact	cttctgaagg	agttcctgtat	cttctgg	ttt
26341	actattatta	ttattctgtt	tggaacttta	acattgccta	tcatggcaga	aaacgg
26401	attaccgttg	aggagcttaa	acaactcctg	gaacaatgg	acctagtaat	agg
26461	ttccctagcct	ggatttatgtt	actacaattt	gcctattcta	atcggac	gtttt
26521	ataataaagc	ttgttttctt	ctggcttcttgc	tggccagtaa	cacttgcgtt	ttttgt
26581	gctgctgtct	acagaattaa	ttgggtgact	ggcgggatttgc	cgattgcaat	ggctt
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26701	tcaatgttgt	cattcaaccc	agaaacaaac	attcttc	atgtgcctc	ccgggg
26761	attgtgacca	gaccgctcat	gaaaagtgaa	cttgcatttgc	gtgtgtgtat	cattcgt
26821	cacttgcgaa	tggccggaca	ctccctaggg	cgctgtgaca	ttaaggac	gc
26881	atcaactgtgg	ctacatcacg	aacgcttct	tattacaaat	taggagcgtc	gcagcgt
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27181	taagcctcta	actaagaaga	attattcgg	gttagatgat	gaagaaccta	tggagt
27241	ttatccataa	aacgaacatg	aaaattttt	tcttcctgtac	attgattgt	tttacat
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27361	gccccatcagg	aacatcacg	ggcaattcac	catttcaccc	tcttgctgac	aataaattt
27421	cactaacttg	cactagcaca	cacttgc	ttgcttg	tgacggta	cgacata
27481	atcagctgcg	tgcaagatca	gtttcacca	aacttttcat	cagacaagag	gagg
27541	aagagctcta	ctcgccactt	tttctcatttgc	ttgctgtct	atgttttta	atactt
27601	tcaccattaa	gagaaagaca	gaatgaatga	gctca	attgacttct	attt
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27721	aatccaggat	ctagaagaac	cttgatccaa	agtctaaacg	aacatgaaac	ttctcatt
27781	tttgacttgt	atttctctat	gcagttgc	acgcactgta	gtacagcgt	gtgc
27841	taaacctcat	gtgcttgaag	atccctgtaa	ggtacaacac	tagggtaat	acttata
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27961	aaacatgcac	acctaatttgc	actatcaact	gtcaagatcc	agctgggt	g
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28621	tacgcagagg	gaagcagagg	cgccagt	gctcttctc	gtcttcatc	acgt
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28741	agcggagg	gtgaaactgc	cctcgc	ttgtgtct	acagattgaa	ccag
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28861	gctgaggcat	ctaaaaagg	tcgc	cgtactgca	caaaacagta	caac
28921	caagcatttgc	ggagacgttgc	tccagaacaa	acccaaagg	atttgcgg	caaa
28981	atcagacaag	gaactgat	caa	ccgaaatttgc	cacaatttgc	tccaa
29041	tctgcattt	tttgcgtt	acgcatttgc	atggaa	caccc	aat
29101	acttatcatg	gagccattaa	attggat	aaagatcc	aattcaaa	caac
29161	ctgcttgc	acacatttgc	cgcat	acattcc	caacag	taaa
29221	aaaaagaaaa	agactgtat	agctc	ttggcc	gacaaa	gcag
29281	gtgactt	ttcctgc	tgacat	gatttcttca	gacaacttca	aaatt
29341	agtggagctt	ctgcttgc	aactcagg	taaacact	tgatgacc	acaagg
29401	tgggttatgt	aaacgttttgc	gcaatttgc	ttacgata	tagtctact	ttgt
29461	tgaattctcg	taactaaaca	gcacaagg	gtttgtt	ctttaatctc	acatag
29521	ctttaatcaa	tgtgttacat	tagggagg	ttgaaag	accacattt	tcatcg
29581	cacgcggagt	acgatcgagg	gtacag	taatgtt	gagagcttcc	tatatgg

**FIGURE 9I**

29641 agccctaattgtaaaaatatttttagtagtgctatccccatgtgattttaatagc ttct  
29701 taggagaatgacaaaaaaaaaaaaaaaa aaaaaaa

**FIGURE 10**

1	tctgtgttagc	tgtcgctcg	ctgcacgc	atgtgcacca	cgcagataa	acaataataa
61	attttactgt	cgttacaagg	aaacgagtaa	ctcgccctc	ttctgcagac	tgcttacgg
121	ttcgccgtg	ttcgactcg	tcatcagcat	acctaggtt	cgtccgggt	tgaccgaaag
181	gtaagatgga	gagccttgtt	cttgggtgtca	acgagaaaac	acacgtccaa	ctcagttgc
241	ctgtccttca	ggttagagac	gtgctagtgc	gtggcttcgg	ggactctgt	gaagaggccc
301	tatcgaggc	acgtaaacac	ctcaaaaatg	gcacttgtgg	tctagtagag	ctggaaaaag
361	gcgtactgcc	ccagcttgaa	cagccctatg	tgttcattaa	acgttctgtat	gccttaagca
421	ccaatcacgg	ccacaaggtc	gttgagctgg	ttgcagaaat	ggacggcatt	cagtacggtc
481	gtagcggtat	aacactggga	gtactcgtgc	cacatgtggg	cgaaacccca	attgcatacc
541	gcaatgttct	tcttcgtaa	aacggtataa	aggagccgg	tggtcatagc	tatggcatcg
601	atctaaagtc	ttatgactta	ggtgacgagc	ttggcactga	tcccattgaa	gattatgaac
661	aaaactggaa	cactaagcat	ggcagtgtg	cactccgtga	actcaactcg	gagctcaatg
721	gagggtgtgt	cactcgttat	gtcgacaca	atttctgtgg	cccagatggg	taccctcttg
781	attgcatcaa	agattttcta	gcacgcgcgg	gcaagtcaat	gtgcactctt	tccgaacaac
841	ttgattacat	cgagtcgaag	agaggtgtct	actgtgcgg	tgaccatgag	catgaaattg
901	cctggttcac	tgagcgtct	gataagagct	gcgagccaca	gacacccttc	gaaattaaga
961	gtgccaagaa	atttgacact	ttcaaaagggg	aatggccaaa	gttgggttt	cctcttaact
1021	caaaaatcaa	agtcatccaa	ccacgtgtt	aaaagaaaaa	gactgagggt	ttcatggggc
1081	gtatacgctc	tgtgtaccct	gttgcatttc	cacaggagt	taacaatatg	cacttgtcta
1141	ccttgatgaa	atgtaatcat	tgcgtatgaa	tttcatggca	gacgtgcgac	tttctgaaag
1201	ccacttgtga	acattgtggc	actgaaaatt	tagttattga	aggacctact	acatgtgggt
1261	acctacctac	taatgctgt	gtgaaaatgc	catgtccgtc	ctgtcaagac	ccagagattg
1321	gacctgagca	tagtgttgc	gattatcaca	accactcaaa	cattgaaact	cgactccgca
1381	agggaggtag	gactagatgt	tttggaggt	gtgtgtttgc	ctatgttgc	tgctataata
1441	agcgtgccta	ctgggttcct	cgtgctagt	ctgatattgg	ctcagggcat	actggcatta
1501	ctgggtgacaa	tgtggagacc	ttgaatgagg	atctccttga	gatactgagt	cgtgaacgtg
1561	ttaacattaa	cattgttgc	gattttcatt	tgaatgaaga	ggttgcacatc	attttggcat
1621	cttctctgc	ttctacaagt	gcctttattg	acactataaa	gagtcttgc	tacaagtctt
1681	tcaaaaaccat	tgttgagtcc	tgcgg			

FIGURE 11A

1 agtgttttat tagcacttca acagcttcaa gtcaaattca atgcaccagc acttcaagag  
61 gcttattata gagcccgatgc tggatgtct gctaactttt gtgcactcat actcgcttac  
121 agtaataaaa ctgttggcga gcttgggtat gtcagagaaa ctagaccca tcttctacag  
181 catgctaatt tggaatctgc aaagcgagtt cttaatgttg tggtaaaaca ttgtggtcag  
241 aaaactacta ccttaacggg tggaaagct gtatgtata tgggtactct atctttagat  
301 aatcttaaga cagggtttc cattccatgt gtgtgtggc gtgatgtac acaatata  
361 gtacaacaag agtcttctt tggatgtat tggcaccac ctgctgagta taaattacag  
421 caaggtacat tcttatgtgc gaatgagtac actggtaact atcagtgtgg tcattacact  
481 catataactg ctaaggagac cctctatcg attgacggag ctcacccatc aaagatgtca  
541 gagtacaaag gaccagtgc tgatgtttc tacaaggaaa catcttacac tacaaccatc  
601 aaggctgtgt cgataaaact cgatggagtt acttacacag agattgaacc aaaattggat  
661 gggtattata aaaaggataa tgcttactat acagagcgc ctatagacct tgtaccaact  
721 caaccattac caaatgcgag ttttataat ttcaaactca catgttctaa cacaaaattt  
781 gctgatgatt taaatcaaata gacaggcttc acaaagccag cttcacgaga gctatctgtc  
841 acattcttcc cagacttgc tggcgatgtat gtggcttattt actatagaca ctattcagcg  
901 agtttcaaga aaggtgctaa attactgcatt aagccaattt tttggcacat taaccaggct  
961 acaaccaaga caacgttcaa accaaacact tgggttttac gttgttttgg gagtacaaag  
1021 ccagtagata cttcaaattt atttgcattt ctggcagtag aagacacaca aggaatggac  
1081 aatcttgctt gtgaaagtca acaaccacc tctgaagaag tagtggaaaa tcctaccata  
1141 cagaagggaaat tcatacgatgc tgacgtgaaa actaccgaag ttgttaggcaaa tgcataactt  
1201 aaaccatccatc atgaagggtt taaagtaaca caagagtttgcatgagga tctttaggtt  
1261 gcttatgtgg aaaaacacaag cattaccatt aagaaacacta atgacgtttc actagccta  
1321 ggtttaaaaat caattggccatc tcatgttattt gtcgatgttata atagtgttcc ttggagtaaa  
1381 atttggctt atgtcaaaacc attcttaga caagcagcaa ttacaacatc aaattgcgt  
1441 aagagatttag cacaacgtgt gtttacaat tatatgcctt atgtgttttgcatttgcatt  
1501 caattgtgtt cttttactaa aagtaccaat tctagaattt gagcttactt acctacaaact  
1561 attgcttaaaa atagtgttac gagtgttgc aaattatgtt tggatgccgg cattaattat  
1621 gtgaagtcac ccaaattttc taaatttttca acaatcgctt tgggttattt gttgttaagt  
1681 atttgcttag gtttctaat ctgtgttactt gtcgttttgcgtactt atctaaatttt  
1741 ggtgctccctt cttattgtaa tggcgtaga gaattgtatc ttaattcgatc taacgttact  
1801 actatggatt tctgtgaagg ttctttctt tgcagcattt gtttaagtgg attagactcc  
1861 cttgattttt atccagcttgc tggaaaccattt cagggtgacga tttcatcgatc caagctagac  
1921 ttgacaattt taggtctggc cgctgagtgg gtttggcat atatgttgcattt cacaatcc  
1981 ttttattttat taggtctttc agctataatg cagggttttgcgttattt tgctgttact  
2041 ttcatcagca attttggctt catgtggttt atcattagta ttgtacaaat ggcacccgtt  
2101 tctgcaatgg ttagatgtat catcttctt gtttcttctt actacatatg gaagagctat  
2161 gttcatatca tggatggtttgc cacctttcg acttgcatttgc tggatgtataa ggcacatcg  
2221 gccacacgcg ttgagtgtac aactattttt aatggcatgc agagatctt ctatgtctat  
2281 gcaaattggag gccgtggctt ctgcaagact cacaattggaa attgtctcaat ttgtgacaca  
2341 ttttgcactg gtagtacattt cattgtgtat gaaatgttgc tggatgttgc actccagtt  
2401 aaaagaccaa tcaaccctac tgaccgtca tggatgtattt ttgatgtatgt tggatgtgaaa  
2461 aatggcgccg ttcaccttca ctttgcataag gctggcaaa agacatgttgc gggacatcc  
2521 ctctccattt ttgtcaattt agacaattttt agagcttgc acactaaagg ttcactgttgc  
2581 attaatgtca tagttttgttgc tggcaatgc aatgtgcacg agtctgttgc taagtctgt  
2641 tctgtgtactt acagtcatgtt gatgtggccaa ctattttgttgc tggatgttgc agtcttgc  
2701 tcagacgttg gagatgttgc tggatgttttgc tggatgttgc tggatgttgc  
2761 ttttcagcaat ctttttgttgc tggatgttgc aatgttgc tggatgttgc tggatgttgc  
2821 agcgagtttgc caaagggtgttgc tggatgttgc tggatgttgc tggatgttgc  
2881 cgacaagggttgc tggatgttgc tggatgttgc tggatgttgc tggatgttgc  
2941 tcacatcactt ctgacttgc tggatgttgc tggatgttgc tggatgttgc  
3001 aataagggttgc aaaaatgttgc tggatgttgc tggatgttgc tggatgttgc  
3061 catatcaatgc cccaaatgttgc aaaaatgttgc tggatgttgc tggatgttgc  
3121 tacatgtttt ttttgcattt tggatgttgc tggatgttgc tggatgttgc  
3181 ataccttttgc tggatgttgc tggatgttgc tggatgttgc tggatgttgc  
3241 atctcacttgc tggatgttgc tggatgttgc tggatgttgc tggatgttgc  
3301 ttattgttgc tggatgttgc tggatgttgc tggatgttgc tggatgttgc  
3361 atccatgtatgc tggatgttgc tggatgttgc tggatgttgc tggatgttgc  
3421 cgtgacatca ttttgcattt tggatgttgc tggatgttgc tggatgttgc  
3481 tttagccagc tggatgttgc tggatgttgc tggatgttgc tggatgttgc  
3541 attacaagatgc agtgggtttgc tggatgttgc tggatgttgc tggatgttgc  
3601 aatggatgttgc ttttgcattt tggatgttgc tggatgttgc tggatgttgc

FIGURE 11B

3661 acaccttcca aactcattga gtatagtat tttgcttaccc ctgcttcgt tcttgctgct  
 3721 gagtgtacaa ttttaagga tgctatggc aaacctgtgc catattgtta tgacactaat  
 3781 ttgcttagagg gttctatttc ttatagtgag cttcgccag acactcgta tttgtttagt  
 3841 gatggttcca tcatacagtt tcctaacaact tacctggagg gttctgttag agtagtaaca  
 3901 acttttgatg ctgagtaactg tagacatggt acatgcgaaa ggtcagaagt aggtatttgc  
 3961 ctatctacca gtggtagatg ggttcttaat aatggcatt acagagctt atcaggagtt  
 4021 ttctgtgggt ttgatgcgt gaatctcata gctaacaatct ttactcttct tttgtcaacct  
 4081 gtgggtgctt tagatgtgtc tgcttcgtgat gttttgttgc gtattattgc catattgggt  
 4141 acttggatgtc cctactactt tatgaaattc agacgtgtt ttgggtgagta caaccatgtt  
 4201 gttgctgtca atgcactttt gttttgtatg ttcttcacta tactctgtct ggtaccagct  
 4261 tacagcttc tgccgggagt ctactcgtc tttaacttgc acttgcattt ctatttcacc  
 4321 aatgatgttt cattttggc tcaccccaa tggtttgcca tggtttctcc tattgtgcct  
 4381 ttttggataa cagcaatcta tgtattctgt atttctctga agcactgcca ttgggtcttt  
 4441 aacaactatc ttaggaaaag agtcatgtt aatggagttt catttagtac cttcgaggag  
 4501 gctgctttgt gtaccccccgtt gctcaacaag gaaatgtacc taaaattgcg tagcgagaca  
 4561 ctgttgcaccc ttacacagta taacaggtat cttgtcttat ataacaagta caagtatttc  
 4621 agtggagccct tagatactac cagctatcgt gaagcagctt gctgccactt agcaaaggct  
 4681 ctaaatgact ttagcaactc aggtgtgtat gttctctacc aaccaccaca gacatcaatc  
 4741 acttctgtgt ttctgcagag tggttttagg aaaatggcat tcccgtcagg caaagttgaa  
 4801 ggggtgcattgg tacaaggtaac ctgtggaaact acaactctt atggattgtg gttggatgac  
 4861 acagtataact gtccaaagaca tgtcatttgc acagcagaag acatgcttaa ttcttaactat  
 4921 gaagatctgc tcatttcgcaaa atccaaaccat agctttcttg ttccaggttgc caatgttcaaa  
 4981 cttcgtgtta ttggccattc tatgcaaaaat tgctgttca ggcttaaagt tgatacttct  
 5041 aaccctaaga caccctaaga taaattgtc cgtatccaaat ctggtcaaaat ttttcagtt  
 5101 cttagatgtc acaatggttc accatctgtt gtttactgtg tgccatgag acctaattcat  
 5161 accattaaag gttttttctt taatggatca tggtttagt tggttttaa cattgattat  
 5221 gattgcgtgt ctttctgtca tatgcatcat atggagcttc caacaggagt acacgcttgc  
 5281 accgacttag aaggtaaattt ctatggtcca ttgttgcaca gacaaactgc acaggctgca  
 5341 ggtacagagca caaccataaac attaaatgtt ttggcatggc tgtagtgc tggttatcaat  
 5401 ggtgataagg gttttcttaa tagattcacc actactttga atgactttaa ctttggca  
 5461 atgaagtaca actatgaacc tttgacacaa gatcatgtt acatattggg accttcttct  
 5521 gctcaaacag gaattggcgtt cttagatgtg tgtagtgcctt tgaaagagct gctgcagaat  
 5581 ggtatgaatg gtcgtactat ctttggtagc actattttag aagatgagtt tacaccattt  
 5641 gatgttgcata gacaatgtc ttgggttacc ttccaaaggta agttaaagaa aattgttaag  
 5701 ggcactcatc attggatgtt ttaactttc ttgacatcac tattgattct tggttcaaaat  
 5761 acacagtgtt cactgtttt ctttggttac gagaatgtt tcttggcatt tactcttgc  
 5821 attatggcaa ttgtgtcatg tgctatgtc ctgtttaagc ataagcacgc attcttgc  
 5881 ttgtttctgt taccttcttca tgcaacagtt gtttacttta atatggtcta catgcctgct  
 5941 agctgggtga tgctgtatcat gacatggctt gaattggctt acactagctt gttctgttat  
 6001 aggcttaagg attgtgttat gtatgttca gtttttttt tgcttattct catgacagct  
 6061 cgcaactgttt atgatgtatgc tgctagacgt gtttggacac tgatgtatgtt cattacactt  
 6121 gtttacaaag tctactatgg taatgttca gatcaagcta ttccatgtg ggccttagtt  
 6181 atttctgtaa cctcttaacta ttctgggtc ttacgacta tcatgtttt agctagagct  
 6241 atagtgtttg tggtgtgtga gtattatcca ttgttatttt ttactggcaaa caccttacag  
 6301 tgtagtcatgc ttgttattttt ttgtttaggc tattgttgc gctgtactt tggccctttc  
 6361 tggttactca accgttactt caggctact ctgggtgttt atgactactt ggtctctaca  
 6421 caagaattta ggtatataa gttttttttt ctttgcctt ctaagagtag tattgtatgt  
 6481 ttcaagctta acattaagtt gttgggtatt ggaggttaaac catgttcaaa gtttgcact  
 6541 gtacagttca aatgtctga cgttaaagtgc acatctgtgg tactgtcttc gtttcttca  
 6601 caacttagag tagagtcatc ttcttaattt ttggcacaat tgtagtacaact ccacaatgt  
 6661 atttcttcttcaaaaagacac aactgaagctt ttcgagaaga tggttcttctt tttgtctgtt  
 6721 ttgtatgtca tgcaagggtgc tgtagacatt aatagggtt gtcgagaaat gtcgataac  
 6781 cttgtacttc ttcaaggctat tgcttcagaa tttagttctt taccatcata tggccctt  
 6841 ggcactgccc aggaggccca tgagcaggct gtagctatgt tgattctga agtcgttctc  
 6901 aaaaagttaa agaaaatcttt gaatgtggct aaatctgagt ttgaccgtga tgctgcccc  
 6961 caacgcaagt tgaaaaagat ggcagatcag gctatgaccc aaatgtacaa acaggcaaga  
 7021 tctgaggaca agagggccca agtcgttctt gctatgtcaaa caatgtctt cactatgtca  
 7081 aggaagcttg ataatgtatgc acttaacaac attatcaaca atgcgttgc tggttgc  
 7141 ccactcaaca tcatacattt gactacagca gccaactca tggttgc tggttgc  
 7201 ggtacctaca agaacacttg tgatgttcaac accttttacat atgcgttgc actctggaa  
 7261 atccagcaag ttgttgcattt ggtatgtcaac attgttcaac ttgttgc ttgttgc  
 7321 aattcacca aattttttttt gttttttttt gttttttttt gttttttttt gttttttttt

**FIGURE 11C**

7381	aaactacaga	ataatgaact	gagtcggta	gcactacgac	agatgtcctg	tgcggctgg
7441	accacacaaa	cagcttgcac	tgtgacaat	gcacttgcc	actataacaa	ttcgaaggga
7501	ggtaggtttg	tgctggcatt	actatcagac	caccaagatc	tcaaatgggc	tagattccct
7561	aagagtgtat	gtacaggtac	aatttacaca	gaactggAAC	caccttgcgt	gtttgttaca
7621	gacacaccaa	aaggcctaa	agtggaaatac	ttgtacttca	tcaaaggcct	aaacaaccta
7681	aatagaggta	tggtgctgg	cagtttagct	gctacagtgac	gtcttcaggc	tggaaatgt
7741	acagaagttac	ctgccaattc	aactgtgctt	tccttctgtg	ctttgcgt	agaccctgt
7801	aaagcatata	aggattacct	agcaagtgg	ggacaaccaa	tcaccaactg	tgtgaagatg
7861	tttgttacac	acactggta	aggacaggca	attactgtaa	caccagaagc	taacatggac
7921	caagagtct	ttgggtgtgc	ttcatgttgc	ctgtattgt	gatgccacat	tgaccatcca
7981	aatcctaaag	gattctgtga	cttggaaaggt	aagtacgtcc	aaataacctac	cacttgcgt
8041	aatgaccagg	tgggtttac	acttagaaac	acagtctgt	ccgtctgcgg	aatgtggaaa
8101	ggttatggct	gtagttgtga	ccaactccgc	gaacccttga	tgcagtcgtc	ggatgcata
8161	acgtttttaa	acgggttgc	gggttaagt	cagccgtct	tacaccgtgc	ggcacaggca
8221	ctagttactga	tgtcgctcac	agggcttttgc	atatttacaa	cggaaaagtt	gctggttttg
8281	caaagttctt	aaaaactaat	tgctgtcgct	tccaggagaa	ggatgaggaa	ggcaatttat
8341	tagactctta	ctttttagtt	aagaggcata	ctatgtctaa	ctaccaacat	gaagagacta
8401	tttataactt	ggttaaagat	tgtccagcgg	ttgtctgtcc	tgacttttc	aagtttagag
8461	tagatggta	catggtacca	catatatcac	gtcagcgtct	aactaaatac	acaatggctg
8521	atttagtcta	tgctctacgt	cattttatgc	aggtaatttgc	tgatacatta	aaagaaaatac
8581	tcgtcacata	caattgtct	gatgtatgt	atttcaataa	gaaggatgg	tatgacttcg
8641	tagagaatcc	tgacatctta	cgcgtatatac	ctaactttag	tgacgtgt	cgcacatcat
8701	tattaaagac	tgtacaattc	tgcgatgtca	tgctgtatgc	aggcattgt	ggcgtactga
8761	cattagataa	tcaggatctt	aatggaaact	ggtacgattt	cggtgatttgc	gtacaagtag
8821	caccaggctg	cggagttctt	attgtggatt	cataattact	attgctgtat	ccccatcctca
8881	ctttgacttag	ggcattggct	gctgagttccc	atatggatgc	tgatctcgca	aaaccactta
8941	ttaagtggga	tttgctgaaa	tatgatttt	cggaagagag	actttgtctc	ttcgaccgtt
9001	attttaaata	ttgggaccag	acataccatc	ccaaattgtat	taactgttt	gatgataggt
9061	gtatccctca	tgtgcaaac	ttaatgtgt	tatttctac	tgtgttcca	cctacaagtt
9121	ttggaccact	agtaagaaaa	atattttag	atgggtttcc	ttttgttgg	tcaactggat
9181	accattttcg	tgagtttagga	gtcgatcata	atcaggatgt	aaacttacat	agctcgcgtc
9241	tcagttcaa	ggaactttt	gtgtatgtc	ctgatccagc	tatgcatgca	gcttctggca
9301	atttattgtct	agataaacgc	actacatgt	tttcagtagc	tgcactaaca	aacaatgttg
9361	cttttcaaaac	tgtccaaaccc	ggtaatttt	ataaaagactt	ttatgactt	gctgtgtctt
9421	aagggttctt	taaggaagga	agttctgtt	aactaaaaca	cttcttctt	gctcaggatg
9481	gcaacgcgtc	tatcagtgtat	tatgactatt	atcggtataa	tctgccaaca	atgtgtgata
9541	tcagacaact	cctattcgta	gttgaagtt	ttgataaata	ctttgattgt	tacgtatgggt
9601	gctgttattaa	tgccaaacca	gtaatcgta	acaatctgga	taaatcagct	ggtttcccat
9661	ttaataaaatg	gggttaaggct	agactttatt	atgactcaat	gagttatgag	gatcaagatg
9721	cacttttcgc	gtatactaa	cgtaatgtca	tccttactat	aactcaaata	aatcttaagt
9781	atgcccattag	tgccaaagaa	agagctcgca	cgtagctgg	tgtctctatc	tgttagacta
9841	tgacaaaatg	acagtttcat	cagaattat	tgaagtcaat	agccgcact	agaggagacta
9901	ctgtggtaat	tggaaacaagg	aagttttacg	gtggctggca	taatatgtt	aaaactgttt
9961	acagtgtatgt	agaaaactcca	caccttata	gttggggat	tccaaaatgt	gacagagcca
10021	tgcctaacat	gctttaggata	atggcctctc	ttgttcttgc	tcgcaaaat	aaacactgtct
10081	gtaaacttac	acaccgttcc	tacaggttag	ctaacgagtg	tgcgcaagta	ttaagtggaga
10141	tggcatgtt	tggcgctca	ctatatgtt	aaccaggtgg	aacatcatcc	ggtgatgctt
10201	caactgctta	tgctaatagt	gtcttaaca	tttgtcaagc	tgttacagcc	aatgtaaatg
10261	cacttcttc	aactgtatgt	aataagatag	ctgacaagta	tgtccgcaat	ctacaacaca
10321	ggctctatga	gtgtctctat	agaaaatagg	atgttgcata	tgaattcg	gatgagtttt
10381	acgcttacat	gctgaaacat	ttctccatga	tgattcttgc	tgtatgtgcc	gttgggtgtgt
10441	ataacagtaa	ctatgcggct	caagggttag	tagctagcat	taagaactt	aaggcagttc
10501	tttattatca	aaataatgt	ttcatgtct	aggcaaaaatg	ttggac	

FIGURE 12A

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1 attagcgata tgtatgaccc taggacccaaa catgtgacaa aagagaatga ctctaaagaa
61 gggttttca cttatctgtg tggatttata aagcaaaaac tagccctggg tggttctata
121 gctgtaaaga taacagagca ttcttggaaat gctgacctt acaagcttat gggccatttc
181 tcatggtggc cagctttgt tacaaatgt aatgcattcat catcggaaagc attttaatt
241 ggggctaact atcttggcaa gccgaaggaa caaattgatg gctataccat gcatgctaac
301 tacatttct ggaggaacac aaatccatc cagttgtctt cctattact ctttgacatg
361 agcaaatttc ctctaaatt aaggggaact gctgtaatgt ctcttaagga gaatcaaattc
421 aatgataatga tttattctct tctggaaaaa ggtaggctt tcatttagaga aaacaacaga
481 gttgtggttt caagtatgat tcttgttaac aactaaacga acatgtttat tttcttatttt
541 tttcttactc tcactagtgg tagtgcaccc gaccgggtca ccactttga tgatgttcaa
601 gctcctaattt acactcaaca tacttcatct atgagggggg tttactatcc tgatgaaatt
661 ttagatcag acactcttta ttaactcag gatttatttc ttccatattta ttctaatgtt
721 acagggtttc atactattaa tcatacgat ggcacccctg tcataccctt taaggatggt
781 atttattttg ctgccacaga gaaatcaaattt gttgtccgtg gttgggtttt tggttctacc
841 atgaacaaca agtcacagtc ggtgattattt attagcaattt ctactaatgt tggtatacga
901 gcatgtactt ttgaattgtg tgacaaccct ttctttgctg tttctaaacc catgggtaca
961 cagacacata ctatgatattt cgataatgca ttaatttgc ctttcgagta catatctgat
1021 gcctttcgc ttgtatgttca agaaaagtca ggttattttt aacacttacg agagtttgc
1081 tttaaaaata aagatgggtc tctctatgtt tataagggctt atcaacccat agatgttagtt
1141 cgtgatctac ctcttggttt taacactttg aaaccttattt ttaagttgcc tcttggattt
1201 aacattacaa attttagagc cattcttaca gcctttcac ctgctcaaga catttggggc
1261 acgtcagctg cagcctattt tttttggctat ttaaagccaa ctacatttat gctcaagtat
1321 gataaaaatg gtacaatcac agatgtgtt gattgtctc aaaatccact tgctgaactc
1381 aatgtctg ttaagagctt tgagatgac aaaggaaattt accagacccctc taatttcagg
1441 gttgttccctt caggagatgt tttttttttt cttttttttt cttttttttt tttttttttt
1501 gaggtttta atgtactaa atttttttt tttttttttt tttttttttt tttttttttt
1561 aattgtgttgc ctgattactc tttttttttt tttttttttt tttttttttt tttttttttt
1621 tatggcgttt ctgcccactaa gttttttttt tttttttttt tttttttttt tttttttttt
1681 ttgttagtca agggagatgt tttttttttt tttttttttt tttttttttt tttttttttt
1741 gattataattt ataaatttgc agatgtttt tttttttttt tttttttttt tttttttttt
1801 aacattgtatg ctacttcaac tttttttttt tttttttttt tttttttttt tttttttttt
1861 aagcttaggc cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
1921 tgcacccac ctgctttttt tttttttttt tttttttttt tttttttttt tttttttttt
1981 actggcattt gctaccaacc tttttttttt tttttttttt tttttttttt tttttttttt
2041 cccggccacgg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
2101 tttaattttt atggacttca tttttttttt tttttttttt tttttttttt tttttttttt
2161 ccatttcaac aatttggcccg tttttttttt tttttttttt tttttttttt tttttttttt
2221 acatctgaaa tatttagacat tttttttttt tttttttttt tttttttttt tttttttttt
2281 ggaacaaatg ctttcatctga tttttttttt tttttttttt tttttttttt tttttttttt
2341 tctacagcaa ttttcatgcaga tttttttttt tttttttttt tttttttttt tttttttttt
2401 aatgtatcc agactcaagg tttttttttt tttttttttt tttttttttt tttttttttt
2461 gagtgcgaca tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
2521 cgtgtacta gccaatataatc tttttttttt tttttttttt tttttttttt tttttttttt
2581 attgcttactt ctaataacac tttttttttt tttttttttt tttttttttt tttttttttt
2641 gaagtaatgc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
2701 gattctactg aatgtgttca tttttttttt tttttttttt tttttttttt tttttttttt
2761 cgtgcactt cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
2821 gtcaaaacaaa tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
2881 atattacctg acccttcaaa tttttttttt tttttttttt tttttttttt tttttttttt
2941 aagggtgacac tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
3001 aatgtctatg atcttatttgc tttttttttt tttttttttt tttttttttt tttttttttt
3061 ctcaactgtatg atatgatttgc tttttttttt tttttttttt tttttttttt tttttttttt
3121 ggatggacat tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
3181 aggttcaatg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
3241 aaccaatttca acaaggcgat tttttttttt tttttttttt tttttttttt tttttttttt
3301 ttgggcaagc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt
3361 caacttagct ctaattttgg tttttttttt tttttttttt tttttttttt tttttttttt
3421 gataaagtgcg aggccggaggt acaaatttgc aggttatttca cttttttttt tttttttttt
3481 caaacctatg taacacaaca actaatcagg gttttttttt tttttttttt tttttttttt
3541 gctgtacta aaatgtctga tttttttttt tttttttttt tttttttttt tttttttttt
3601 aagggttacc acccttatttgc tttttttttt tttttttttt tttttttttt tttttttttt

```

**FIGURE 12B**

3661 gtcacgtatg tgccatccca ggagaggaac ttcaccacag cgccagcaat ttgtcatcaa  
3721 ggcaaagcat acttccctcg tgaagggttt atggcaactc ttggtttatt  
3781 acacagagga acttctttc tccacaaaata attactacag acaatacatt tgcgtcagga  
3841 aattgtatcg tcgttattgg catcataaac aacacagttt atgatccctc gcaacctgag  
3901 cttgactcat tcaaagaaga gctggacaag tacttcaaaa atcatacatc accagatgtt  
3961 gatcttggcg acatttcagg cattaacgcgt tctgtcgtca acattcaaaa agaaatttgc  
4021 cgcctcaatg aggtcgctaa aaatttaaat gaatcactca ttgaccttca agaatttgg  
4081 aaatatgagc aatatattaa atggccttgg tatgtttggc tcggcttcat tgctggacta  
4141 attgccatcg tcatggttac aatcttgctt ttttgcattt ctagttgtt tagttgcctc  
4201 aagggtgcat gctcttggg ttcttgcgtc aagtttgcgtt aggatgactc tgagccagg  
4261 ctcaagggtg tcaaattaca ttacacataa acgaacttat ggatttgcgtt atgagatttt  
4321 ttactcttgg atcaattact gcacagccag taaaaactga caatgcattt cctgcaagta  
4381 ctgttcatgc tacagcaacg ataccgtac aagcctcact cccttcgga tggcttgc  
4441 ttggcgttgc atttcttgcgtt gttttcaga ggcgtaccaa aataattgcgtt ctcataaaaa  
4501 gatggcagct agccctttat aaggggcttcc agttcattttt caatttactg ctgctatttgc  
4561 ttaccatcta ttacatctt ttgcttgcgtt ctgcaggtat ggaggcgcaa tttttgtacc  
4621 tctatgcctt gatatactttt ctacaatgca tcaacgcattt tagaattattt atg

FIGURE 13

1 aaagaacctt gcccatcagc aacatacgg ggcattcac catttcaccc tcttgctgac  
61 aataaaatgg cactaacttg cactagcaca cactttgtt ttgcttgtc tgacggtaact  
121 cgacataacct atcagctgc tgcaagatca gtttcaccaa aactttcat cagacaagag  
181 gaggttcaac aagagctcta ctcgcactt ttgctcattt tgctgtct agtattttta  
241 atactttgtc tcaccattaa gagaaagaca gaatgaatga gctcaatttta attgacttct  
301 atttgtgtt ttttagcctt ctgctattcc ttgttttaat aatgttattt atattttggt  
361 tttcaactcgaa aatccaggat ctagaagaac ctgttaccaa agtctaaacg aacatgaaac  
421 ttctcattgt tttgacttgt atttctctat gcagttgcatt atgcactgta gtacagcgct  
481 gtgcattctaa taaacctcat gtgcttgaag atccttgcata ggtacaacac tagggtaat  
541 acttatagca ctgcttggct ttgtgtctaa ggaaagggtt tacctttca tagatggcac  
601 actatggttc aaacatgcac acctaattgtt actatcaact gtcaagatcc agctgggtgt  
661 ggcattatag cttaggtttt gtacattcat gaaggtcacc aaactgctgc atttagagac  
721 gtacttgggtt ttttaataa acgaacaaat taaaatgtt gataatggac cccaatcaaa  
781 ccaacgttagt gccccccgca ttacatttgg tggaccacca gattcaactg acaataacca  
841 gaatggagga cgcaatgggg caaggccaaa acagcgccga ccccaagggtt tacccaataa  
901 tactgcgtct tggttcacag ctctcaactca gcatggcaag gaggaacttta gattccctcg  
961 aggccagggc gttccaatca acaccaatag tggtccagat gaccaaattt gctactaccg  
1021 aagagctacc cgacgagttc gtgggtgtt gggcaaaatg aaagagctca gccccagatg  
1081 gtacttctat taccttaggaa ctggcccaaga agtttcaattt ccctacggcg ctaacaaaga  
1141 aggcattcgta tgggttgc aa ctgaggggagc ctgtataca cccaaagacc acattggcac  
1201 ccgcattctt aataacaatg ctgcaccgt gctacaactt cctcaaggaa caacattgcc  
1261 aaaaggcttc tacgcagagg gaagcagagg cggcagtcaa gcctottctc gtcctctatc  
1321 acgttagtcg ggttattcaa gaaatttcaac tcttggcagc agtagggaa attctcttc  
1381 tcgaatggct agcggagggtt gtgaaactgc cctcgcgcta ttgctgttag acagattgaa  
1441 ccagctttagt agcaaaatgg ctggtaaagg ccaacaaacaa caaggccaaa ctgtactaa  
1501 gaaatctgt gctgaggcat ctaaaaagcc tggccaaaaa cgtacagccca caaaacagta  
1561 caacgtcaact caagcatttgg gggacgtgg tccagaacaa acccaaggaa atttcgggg  
1621 ccaagaccta atcagacaag gaactgatta caaacattgg ccgcaatttgc cacaatttgc  
1681 tccaaatgtcc tctgcattt ttgaaatgtc acgcattggc atggaagccg cacccctcg  
1741 aacatggctg acttatcatg gagccattaa attggatgac aaagatccac aattcaaaaga  
1801 caacgtcata ctgctgaaca agcacattga cgcatacaaa acattcccac caacagagcc  
1861 taaaaggac aaaaagaaaa agactgatga agctcagcc ttgcccaga gacaaaagaa  
1921 gcagcccaact gtgactctt ttcctgcggc tgacatggat gatttctcca gacaacttca  
1981 aaattccatg agtggagctt ctgctgattt aactcaggca taaacactca tgatgaccac  
2041 acaaggcaga tggctatgt aaacgttttgc gcaattccgt ttacgatata tagtctactc  
2101 ttgtgcagaa tgaattctcg taactaaaca gcaacaagttag gtttagtttta ctttaatctc  
2161 acatagcaat cttaatcaa tgtgttaacat tagggaggac ttgaaagagc caccacattt  
2221 tcatcgaggc cacgcggaggat acgatcgagg gtacagtgaa taatgtttagg gagagctgcc  
2281 tatatggaa agccctaatg tgta

**Figure 14A**

1 caagttttc aaaaccattt ttgagtcgt cggttaactat aaaggtaacca agggaaagcc  
61 cgtaaaagggt gcttggaaaca ttggacaaca gagatcagtt ttaacaccac tgggttgtt  
121 tccctcacag gctgctggtg ttatcagatc aattttgcg cgcacactt atgcagcaaa  
181 ccaccaatt ctgttttc aaagagcgcg tgcaccata ctgtatggta ttctgaaca  
241 gtcattacgt ctgtcgacg ccatggta tacttcagac ctgtccacca acagtgcat  
301 tattatggca tatgttaactg gtggcttgtt acaacagact ttcgttgt tgcataatct  
361 ttggcact actgtgaaa aactcaggcc tattttgaa tggatgagg cggaaacttag  
421 tgcaggagtt gaatttctca aggatgcgtt ggaggatctc aaatttctca ttacagggt  
481 ttgtacatc gtcaagggtc aaatacagggt tgcttcagat aacatcaagg atttgtaa  
541 atgcatttcatc gatgttgtt acaaggcact cggaaatgtc attgtatca tcactatgc  
601 tggcgaag ttgcgtatc tcaacttgg tgaagtctc atgcctaaa gcaagggact  
661 ttaccgtcg tgcatactgtt gcaaggagca gctgcacta ctatgcctc taaaggcacc  
721 aaaagaagta acctttctt aagggttacatc aatgcacaca gtacttacct ctgaggaggt  
781 tgcataactt aacggtaac tgcggactt cggagacccc gttgatgtc tcaaaatgg  
841 agctatcggtt ggcacaccag tctgttaaa tggcctcatg ctcttagaga ttaaggacaa  
901 agaacaatac tgcgtatgtt ctctggttt actggctaca aacaatgtc ttgcctttaa  
961 aggggtgca ccaattaaag gtgttaccctt tggagaagat actgtttggg aagtcaagg  
1021 ttacaagaat gtgagaatca catttgcgtt tgatgaacgt gttgacaaag tgcataatga  
1081 aaagtgcctt gtcatactgtt tgaaatccgg taccgaagttt actgagtttgc catgttgt  
1141 agcagggtt gttgtgaaga ctttacaacc agtttctgtt ctcttacca acatgggtat  
1201 tgatctgtt gatgttgcgtt tagtacattt ctactttt gatgtatcgtt gtgaagaaaa  
1261 ctttcatca cgtatgtt gttcccttta ccctccatg gaggaagaag aggacgtatc  
1321 agatgttgcgtt gagaagaaa ttgatgaaac ctgttgcacat gatgttgcgtt cagaggatg  
1381 ttatcaagggtt ctcccttgc aatttgcgtt ctcagctgaa acatgtcgat tggagaaga  
1441 agaagaggaa gactggctgg atgtatctac tgagcaatca gagattggc cagaaccaga  
1501 acctacacccatc gaagaaccatc ttaatcgtt tactggat ttaaaacatc ctgacatgt  
1561 tgccattaaa tggatgttgcac ccgtttaagg ggcacaaatg gtaatccctt tggatgttgc  
1621 aatgtgtgtt acatataccatc tggatgttgcgtt gtcacatgtt gtcacatgtt  
1681 aaccaatgggtt gccatgttgc aatgttgcgtt tttttttttt gtcacatgtt  
1741 agtaggaggg ttttttttttgc ttttttttttgc taatgttgcgtt aatgttgcgtt  
1801 tggaccaacatc tggatgttgcgtt gtcacatgtt gtcacatgtt  
1861 caatttcacatc tggatgttgcgtt gtcacatgtt gtcacatgtt  
1921 acatgttgcgtt tggatgttgcgtt gtcacatgtt gtcacatgtt  
1981 tgacaaatgggtt ttttttttttgc ttttttttttgc taatgttgcgtt aatgttgcgtt  
2041 ggaagcacccatc aaccaagagg ggcacccaaa cacagaagat tccaaacttgc  
2101 tggatgttgcgtt gtcacatgtt gtcacatgtt gtcacatgtt  
2161 cacaacacttgcgtt gtcacatgtt gtcacatgtt gtcacatgtt  
2221 tggatgttgcgtt ttttttttttgc ttttttttttgc taatgttgcgtt  
2281 gggatgttgcgtt gtcacatgtt gtcacatgtt gtcacatgtt  
2341 aatcccttgcgtt gtcacatgtt gtcacatgtt gtcacatgtt  
2401 ggcacccatc tggatgttgcgtt gtcacatgtt gtcacatgtt  
2461 ggaagcacccatc aaccaagagg ggcacccaaa cacagaagat tccaaacttgc  
2521 acatgttgcgtt gtcacatgtt gtcacatgtt gtcacatgtt  
2581 tcatgttgcgtt gtcacatgtt gtcacatgtt gtcacatgtt  
2641 aacccatccatc tggatgttgcgtt gtcacatgtt gtcacatgtt  
2701 cccatgttgcgtt ttttttttttgc ttttttttttgc taatgttgcgtt  
2761 ttttttttttgc ttttttttttgc taatgttgcgtt gtcacatgtt gtcacatgtt  
2821 agaggctgcgtt gtcacatgtt gtcacatgtt gtcacatgtt  
2881 agatgttgcgtt actacatata atggatgttgcgtt gtcacatgtt gtcacatgtt  
2941 ttttttttttgc ttttttttttgc taatgttgcgtt gtcacatgtt gtcacatgtt  
3001 tacagatgtt gtcacatgtt gtcacatgtt gtcacatgtt

**Figure 14B**

3061 gagccccgtc gagtttcatc ttgacggtga ggttcttca ctggacaaac taaagagtct  
3121 cttatccctg cgggagggtta agactataaa agtgttgcaca actgtggaca acactaatct  
3181 ccacacacag ctgtggata tgcttatgc atatggacag cagttggtc caacatactt  
3241 ggatgggtct gatgtacaa aaattaaacc tcatgtaaat catgagggtt agactttctt  
3301 tgtactacct agtgatgaca cactacgtt gtaagcttc gagttactacc atacttttga  
3361 tgagagttt ctggtaggt acatgtctgc tttaaaccac acaaagaat gggaaattcc  
3421 tcaagttgggt ggtttaactt caattaaatg ggctgataac aattttttt tgtcttagtgt  
3481 ttatttagca ctcaacacgc ttgaagtcaa attcaatgca ccagcacttc aagagg

## FIGURE 15A

1 caaaataatg ttgtcatgtc tgaggcaaaa tggactgactg agactgaccc tactaaaggaa  
61 cctcaaat tttgttcaca gcatacaatg ctatgtttaa aaggagatga ttacgtgtac  
121 ctgccttacc cagatccatc aagaatattt ggcgcaggct ttttgtcga tgatattgtc  
181 aaaacagatg gtacacttat gatgtttaaagg ttcgtgtcac tggctatttg tgccttacc  
241 cttaaaaaac atcctaattca ggagatgtct gatgttccatc acitgttattt acaataatt  
301 agaaagttaat atgtatgttct tactggccac atgttggaca tttgttccgt aatgttcaatt  
361 aatgtataaca cctcacggta ctggaaacct gagttttatg aggtatgttca cacaccat  
421 acatgttgc aggctgttagg tgccttgcata ttgtcaattt cacagacttc acttgcgttgc  
481 ggtgcctgtta tttaggagacc acttctatgt tcaagatgtct gctatgttca ttgttcaatt  
541 acatcacaca aattgttgc ttgttgcata ccctatgtttt gcaatcccc aggttgcgttgc  
601 gtcactgttgc tgacacaact gtatcttagg ggtatgttcaattt gtcacataag  
661 cctccattt gttttccattt atgttgcata ggtcagggtt ttgggttata caaaaacaca  
721 tttgttgcata gtgacaatgt cactgttgc aatgttgcata caacatgttca ttggactata  
781 gctggcgattt acatactgtc caacacttgtt acttgagagac tcaagctttt cgccggcggaa  
841 acgttcaag ccactgagga aacatttaag ctgtcatatg ttgttgcac tttgttgcgttgc  
901 gtactctgttgc acagagaattt gcatcttca ttggagggttgc gaaaaccttag accaccat  
961 aacagaaactt atgttgcata ttgggttgcgtt gtaactaaaaa atagtaaaatg acagatttgc  
1021 gatgttgcata ttggaaaagg tgactatgtt gatgttgcata ttgttgcata ttggacttgc  
1081 tacaatgttca atgttgggttca ttactttgtt tttgttgcata ttgttgcata ttggacttgc  
1141 gcaccaactt tagtgcataca agagactat gttttttttt gttttttttt gttttttttt  
1201 aacatcttgc atgatgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
1261 tacttacac tccaaggacc acctggactt gttttttttt gttttttttt gttttttttt  
1321 ctcttattacc catctgttgc cataatgttgc acggcatgtt ctatgttgc gttttttttt  
1381 ctatgttgcata ttgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
1441 cgttgcgcgc tagatgtttt ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
1501 ttctgcacitg taaatgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
1561 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1621 gttttttttt gttttttttt gttttttttt gttttttttt gttttttttt gttttttttt  
1681 cttagaccat aatattttttt tttttttttt gttttttttt gttttttttt gttttttttt  
1741 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1801 tatgttgcata ttgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
1861 aaagggttca ttacacatgtt gttttttttt gttttttttt gttttttttt gttttttttt  
1921 agagaattttt ttacacgttca ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
1981 tcacagaacg ctgttagtttca aaaaatgttca ttgttgcata ttgttgcata ttggacttgc  
2041 cagggttgcata ttgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
2101 aatgttgcata ttgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
2161 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2221 gtggctatcat tacaaggcaga aatgttgcata ttgttgcata ttgttgcata ttggacttgc  
2281 acttgcgttgc atccttgcata ggttgcata ttgttgcata ttgttgcata ttggacttgc  
2341 gaaggattttt ttgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
2401 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2461 cggcgaagaatg ctatgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
2521 gcaacttagatg atgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
2581 aacttagatg ctgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
2641 gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2701 ggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2761 ggatgttgcata ttgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
2821 aatgttgcata ttgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc  
2881 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2941 gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3001 aaccatgttgcata ttgttgcata ttgttgcata ttgttgcata ttgttgcata ttggacttgc

## FIGURE 15B

**FIGURE 16**

1 cattacttta tgatgccaac tactttgtt gctggcacac acataactat gactactgta  
61 taccatataa cagtgcaca gatacaattg tcgttactga aggtgacggc atticaac  
121 caaaactcaa agaagactac caaattgggtg gtattctga ggataggcac tcagggtta  
181 aagactatgt cgftgtcat gcgttattca cggaaatgtt ctaccagctt gagtctac  
241 aaattactac aaacactggt attgaaaatg ctacattctt catcttaac aagcttgtt  
301 aagacccacc gaatgtgcaaa atacacacaa tcgacggctc tcaggagtt gtaatccag  
361 caatggatcc aatttatgtat gaggcgacga cgaactactag cgtgccttgg taagcacaag  
421 aaagtggatc cgaactatgt tacttattcg ttccggaaga aacaggtagc ttaatagtt  
481 atacgtact tcctttctt gccttcgtgg tattctgtc agtcacacta gccatcccta  
541 ctgcgcctcg attgtgtcg tactgcgtca atatgttaa cgtgagttt gtaaaaccaa  
601 cggttacgt ctactcgctg gttaaaaatc tgaactctcc tgaaggagtt cctgatcttc  
661 tggcttaaac gaactaacta ttattattat tctgttggaa actttaacat tgcttacat  
721 ggcagacaac ggtacttta ccgttgagga gttaaacaac ccctggaa aatggAACCT  
781 agtaatagg ttcctatccc tagctggat tatgttacta caattgtctt attctaatacg  
841 gaacagggtt ttgtacataa taaagctgtt ttccctctgg ctcttggc cagtaacact  
901 tgcttgcgtt tgcttgcgtc ctgtctacag aattaattgg gtgactggcg ggattgcgt  
961 tgcaatggct tggatgttag gctgtatgtc gcttagtctt ttcgttgctt cttcaggct  
1021 gtttgcgtt acccgctcaa tgggttcatt caacccggaa acaaaccattc ttcccaatgt  
1081 gcctctccgg gggacaattt tgaccagacc gctcatggaa agtgaacttg tcattggtc  
1141 tggatcatt cgtggcact tgcaatggc cggacactcc ctaggcgtt gtcacattaa  
1201 ggacctgcca aaagagatca ctgtggctac atacgaaacg ctttcttatt acaaattagg  
1261 agcgtcgccag cgtgttaggca ctgattcagg ttttgcgtca tacaaccgctt accgtattgg  
1321 aaactataaa ttaaatcag accacgcccc tagcaacgcac aatattgtctt tgctagtaca  
1381 gtaagtgaca acagatgtt catcttgcgt acitccaggat tacaatagea gagatattga  
1441 ttatcattat gaggacttc aggattgtca tttggatct tgacgttata ataagttcaa  
1501 tagtgagaca attatgtttaa cctcttaacta agaagaattt ttccggagtt gatgtgaag  
1561 aacccatggaa gtttagattt ccataaaacg aacatgaaaa ttattctt cctgacatttgc  
1621 attgttattt catcttgcgtt gctatatac tacaggagtt gtgttagagg tacgactgt  
1681 ctactaaaag aacccttgcctt atcagcaaca tacggggcata accaccattt tcaccctt  
1741 gctgacaata aatitgcact aacttgcactt agcacaactt ttgcgttgc ttgtgtc  
1801 g

## FIGURE 17

1 aaagaacctt gcccacgc aacatacggg ggcaattcac catttcaccc tcttgctgac  
61 aataaaatgt cactaacatgg cactagcaca cacttgcgt ttgcgtgtgc tgacgggtact  
121 cgacatacct atcagctgcg tgcaagatca gtttcaccaa aacttttcat cagacaagag  
181 gagggttcaac aagagctcta ctggccactt ttcttcattt tgctgcgtc agtattttta  
241 atacccatgt tcaccattaa gagaaagaca gaatgaatga gtcacttta attgacttct  
301 atttgtcgtt tttagccctt ctgtctattt ttgttttaat aatgcttattt atattttgtt  
361 ttctactcgaa aatccaggat cttagagaac ctgttaccaa agtctaaacg aacatgaaac  
421 ttctcattgtt tgacttctat gcagtgtcat atgcactgtat gtacagcgct  
481 gtgcattctaa taaacccat gtgttgcagg atccctgtaa ggtacaacac taggggtat  
541 acttatagca ctgcgttgcgt ttgttgcgtca gggaaagggtt taccccttca tagatggc  
601 actatgggttca aacatgcac acctaattgtt actatcaact gtcaagatcc agctgggtgt  
661 gcgcgtttagt cttaggttgcgt gtaccctcat gaaggtcacc aaactgtgc atttagagac  
721 gtactgttgcgtttaataaa acgaaacaaat taaaatgtct gataatggc cccaaatcaaa  
781 ccaacgttagt gccccccgcata ttacatttgg tgagccaca gattcaactg acaataacca  
841 gaatggagga cgcacatgggg caaggccaaa acagcgccga ccccaagggtt tacccatata  
901 tactgcgtctt tggttccacatg ctctcactca gcatggcag gaggaaactta gattccctcg  
961 aggccaggcgttccacatca acaccaatag tggccagat gaccaaatgt gctactacc  
1021 aagagcttacc cgcacgaggatc ttgggtgggtga cggccaaaatg aaagagctca gccccatgg  
1081 gtacttctat taccttagaa ctggcccaaga agcttctat ccctacggcg ctaacaaaga  
1141 aggcacatgtt tggttgcata ctgagggagc ctgttacata cccaaagacc acatggc  
1201 cccgaatctt aataacaatgtt ctggccacccgtt gtcacaactt cctcaaggaa acacatgtcc  
1261 aaaaggcttc tacgcaggagg gaagcaggagg cggcagtcaaa gcctcttc gctctc  
1321 acgttagtcgtt ggttacatcaac tccctggcagc agtaggggaa attctctcg  
1381 tgcacatggctt agccggaggatgtt ggttacatgtc cctcgccgtt ttgttgcgtt acagatgtt  
1441 ccagcttgcg agccaaatgtt ctggtaaagg ccaacaacaa caaggccaaa ctgttactt  
1501 gaaatctgtt gtcgttgcattt ctaaaaagcc tcggccaaaaa cgtacagccca caaaacatgt  
1561 caacgttactt caagcatgtt ggagacgtgg tccagaacaa acccaaggaa atttgcggg  
1621 ccaagaccaatc acagacaaag gaactgattt ctttttttttgg cggccaaaatgtt cacaatttgc  
1681 tccaagtgcctt ctgttactt ttggatgttc acgttgcgtt attggatgtcc cacccttc  
1741 aacatggctt acatcatgtt gagecattaa attggatgttcc acagatgttcc acatcaaaaga  
1801 caacgttactt ctttttttttgcgtt acgttgcgtt ttgttgcgtt acatcc  
1861 taaaaggac aaaaagaaaaa agactgttgc acgttgcgtt ttggccgtt gaccaatgg  
1921 gcagccactt gtacttcttc ttctcttc gtcgttgcgtt gatgttccca gacaacttca  
1981 aaatccatgtt agtggatgtt ctgttactt acgttgcgtt ttttttttttgcgtt  
2041 acacggcgtt tggttgcgtt acgttgcgtt ttgttgcgtt acgttgcgtt  
2101 ttgttgcgtt acgttgcgtt ttttttttttgcgtt  
2161 acatagcaat ctttttttttgcgtt acgttgcgtt ttgttgcgtt  
2221 tcatcgaggc acgttgcgtt acgttgcgtt ttgttgcgtt  
2281 ttttttttttgcgtt acgttgcgtt ttgttgcgtt

## FIGURE 18A

### **FIGURE 18B**

2641 aaccatccaa cgtaagtata aaggagttaa aattcaagag ggcacatcggtt actatggtgt  
2701 ccgattcttc tttatacta gtaaagagcc tgttagcttctt attattacga agctgaactc  
2761 tctaaatgag ccgcgtgtca caatgccaaat tggttatgtg acacatggtt ttaatcttga  
2821 agaggctgctcg cgctgtatgc gttctttaaa agctcctgcc gtagtgcag tatcatcacc  
2881 agatgctgtt actacatata atggataacct cacttcgtca tcaaagacat ctgaggagca  
2941 cttttagaa acagtttctt tggctggctc ttacagagat tggtccttatt caggacagcg  
3001 tacagagttt ggtgttgaat ttcttaagcg tggtgacaaa attgtgtacc acaccctgga  
3061 gagccccgtc gagtttcatc ttgacgggtga ggttttca ctgtacaaac taaagagct  
3121 ctatccctg cgggagggtta agactataaa agtgttcaca actgtggaca acactaatct  
3181 ccacacacag ctgtggata tgtctatgac atatggacag cagttggtc caacataactt  
3241 ggtatggtgct gatgttacaa aaattaaacc tcatgtaaat catgagggtta agactttctt  
3301 tgtactacct agtgtatgaca cactacgttag tgaagcttc gaggactacc atactcttga  
3361 tgagagttt ctggtaggtt acatgtctgc tttaaaccac acaaagaaat ggaaatttcc  
3421 tcaagttgggt ggtttaactt caattaaatg ggctgataac aattgttatt tgtcttagt  
3481 ttatttagca cttcaacagc ttgaagtcaa attcaatgca ccagcacttc aagagg

**FIGURE 19**

1 cattacit ta tgatgccaac tacit tttttt gctggcacac acataactat gactactgt  
61 taccatataa cagtgcaca gatacaatttgcg aggtgacggc attcaacac  
121 caaaactcaa agaagactac caaattgggtg gtattctga ggataggcac tcagggtta  
181 aagactatgt cgttgacat ggctatttca cgaaaggta ctaccagttt gagtttacac  
241 aaattactac aaacacttgtt attgaaaatg ctacattttt catcttaac aagcttgtt  
301 aagacccacc gaatgtccaa atacacacaa tcgacggc tcaggagtt gtaatccag  
361 caatggatcc aatttatgtt gagccgacga cgaactactag cgtgcctttaa agcacaag  
421 aaatgttggta cgaactatgt tactcatttc ttccggaga aacaggtacg ttaatagtta  
481 ataggtaact tctttttttt gcttctgttgg tattttttttt agtcaacta gcccatttt  
541 ctgcgttcg attgtgtcg tactgtgcata atatgtttaa cgtgaggtaa gtaaaaacca  
601 cggtttacgt ctactcgctt gttaaaaatc tgaactctcc tgaaggagttt cctgatctt  
661 tggcttaaac gaactaacta ttattttttt tctgttttttggaa acttttacat tgcttacat  
721 ggcagacaac ggtacttta ccgttgaggaa gcttaacaa ctccctggaa aatggAACCT  
781 agtaataggtt ttccttattcc tagectggat tatgttacta caatttgcctt atttcaatcg  
841 gaacaggttt ttgtacataa taaagcttgc ttccctctgg ctcttgcggc cagtaacact  
901 tgcctttttt gtcgttgcgtt cgtctacag aattaattgg gtgactggcg ggatggcgat  
961 tgcattttttt tttttttttttt gtttggatgtt gcttagtctt ttcgttgcctt cttcaggct  
1021 gtttgcgtt acccgcttca tttttttttttt caacccggaa acaaaccatttcccaatgt  
1081 gctctccgg gggacaatttgcg tttttttttttt gtttggatgtt gcttagtctt ttcgttgc  
1141 tttttttttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt  
1201 ggacctgcataa aagagatca ctgtggctac atcacgaacg cttttttttttt tttttttttttt  
1261 agcgtcgctt cgtgttggca ctgattcagg tttttttttttt tttttttttttt tttttttttttt  
1321 aaactataaa tttttttttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt  
1381 gtaatgttggaa acatgtttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt  
1441 ttatcattt gggactttt aggattgtttt tttttttttttt tttttttttttt tttttttttttt  
1501 tagtgagaca attattttttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt  
1561 aacctatggaa gttttttttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt  
1621 attgtttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt  
1681 ctactaaaatggaa aaccccttgcctt atcagcaaca tttttttttttt tttttttttttt tttttttttttt  
1741 gttttttttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt tttttttttttt  
1801 g

## FIGURE 20

1 tctgtgttagc tgtcgctcg ctgcattgcct agtgcaccta cgcaatataa  
61 attttactgt cgttgacaag aaacgagtaa ctgcggcc tcgtcgac tgcttacgg  
121 ttccgtccgtg ttgcagtgc tcatcaggcat acctaggttt cgtccgggtg tgaccgaaag  
181 gtaagatgga gagccgttgc ttgggtgtca acgagaaaaac acacgtccaa ctgcgttgtc  
241 ctgtccctca ggttagagac gtgttagtgc gtggcttcgg ggactctgtg gaagaggccc  
301 tatcgagggc acgtgaacac ctcaaaaatg gcacttgttgc tctagtagag ctggaaaaaa  
361 gctgtactgcc ccagcttgc cagccctatg tggcattaa acgttctgtat gccttaagca  
421 ccaatcacgg ccacaagggtc gttagactgg ttgcagaaat ggacggcatt cagtagggc  
481 gtacgggtat aacactggga gtactcgtgc cacatgtggg cgaaacccca attgcatacc  
541 gcaatgttct tcgttgc taag aacggtataa agggagccgg tggcatagc tatggcatcg  
601 acttaaagtgc ttatgactta ggtgacgagc ttggcacttgc tccattgaa gattatgaaac  
661 aaaactggaa cactaagcat ggcagtgggtg cactccgtga actcactgt gacgtcaatg  
721 gaggtgttagt cactcgtat gtgcacaaca atttctgtgg cccagatggg tacccttgc  
781 attgcataa agatttctca gcacgcggg gcaagtcaat gtgcacttgc tccgaacaac  
841 ttgattacat cgagtcgaag agagggtct actgtgcgc tgaccatgag catgaaattg  
901 cctggttcac tgagcgtct gataagagct gcgagcacca gacacccttc gaaattaaga  
961 gtgccaagaa atttgacact ttcaaaaggaa aatgccccaa gtttgcgtt cctttaact  
1021 caaaagtcaaa agtcatcaaa ccacgtgttgc aaaagaaaaa gactgagggt ttcatggggc  
1081 gtatacgttc tttgttaccct gtgtgcatttc cacaggagtg taacaatatg cacttgc  
1141 ccttgcgttgc atgttaatcat tgcgatggaa ttcatggca gacgtgcgc acatgtgg  
1201 ccacttgc acattgtggc actggaaatt tagttatgttgc aggacactt acatgtgg  
1261 accttacccat taatgtgttgc gtggaaatgc catgtccgtc ctgtcaagac ccagagattg  
1321 gacccgttgc tagtgcgtca gattatcaca accactcaaa cattgaaact cgactccgc  
1381 agggaggtag gacttagatgt ttggaggct gtgtgttgtc ctatgtggc tgctataata  
1441 agcgtgcctt ctgggttcgtcgtgttgc ctgtataatgg ctcaggccat actggcattt  
1501 ctgggtgacaa tggggagacc ttgaatgagg atctccgttgc gataactgttgc cgtgaacgt  
1561 ttaacattaa cattgttgc gattttcatt tgaatgaaaga ggttgcattt attttgc  
1621 ctgttgc ttttacaatgttgc acatataaa gactgttgc tacaatgttgc  
1681 tcaaaatcat tgggtgttgc tgccgt

**FIGURE 21 (A)**

1 agtgttttat tagcacttca acagcttgcgtt gtcacattca atgcaccagg acttcaagag  
61 gcttattata gagcccggtgc tggatgtct gctaactttt gtgcactcat actcgcttac  
121 agtaaaaaa ctgttggcga gcttgggtat gtcagagaaa ctatgaccca tcttctacag  
181 catctaattt tgaaatctgc aaagcgaggctt ctaatgtgg tggtaaaaca ttgtggtcg  
241 aaaactacta ccttaacggg tttttttttt gttttttttt tttttttttt tttttttttt  
301 aatctttaaga cagggttttcc cattttttttt gttttttttt tttttttttt tttttttttt  
361 gtacaacaag agtcttctt tttttttttt tttttttttt tttttttttt tttttttttt  
421 caaggatcat tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
481 catataactg ctaaggagac cttttttttt tttttttttt tttttttttt tttttttttt  
541 ggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
601 aaggctgtgtc cgtaaaactt cttttttttt tttttttttt tttttttttt tttttttttt  
661 gggttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
721 caaccattttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
781 gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
841 acattttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
901 agttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
961 acaaccaaga caacgttcaa accaaacact tttttttttt tttttttttt tttttttttt  
1021 ccagtagata cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1081 aatcttgcgtt gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1141 cagaaggaag tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1201 aaaccatcgtt gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1261 gcttattgtgg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1321 ggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1381 attttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1441 aagagattttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1501 caatgtgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1561 attttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1621 gtgaagtcaaccatcgtt gttttttttt tttttttttt tttttttttt tttttttttt  
1681 attttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1741 ggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1801 actatggattttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1861 ttgtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1921 ttgtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
1981 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2041 ttcatcagca attttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2101 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2161 ttgtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2221 gcccacacgtt gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2281 gcaaatgggg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2341 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2401 aaaagaccaaa tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2461 aatggcgccg tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2521 ctttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2581 attttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2641 ttgtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2701 tcagacgtt gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2761 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2821 agcgtttagt gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2881 cgacacgtt gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
2941 tcacatctt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
3001 aataagggtt gttttttttt tttttttttt tttttttttt tttttttttt tttttttttt

**FIGURE 21 (B)**

3061 catatcaatg cccaaggtagc aaaaagtcac aatgttgcac tcacatggaa tgtaaaagac  
3121 tacatgtctt tatctgaaca gctgcgtaaa caaatcgta gtgcgtccaa gaagaacaac  
3181 atacccttta gactaacttg tgctacaact agacagggtg tcaatgtcat aactactaaa  
3241 atctcactca agggtgttaa gattgttagt actitgtttta aactttagtct taaggccaca  
3301 ttatttgcg tccttgcattt atgggtttt tatatcgta tgccagtgata tacattgtca  
3361 atccatgatg gttacacaaa tgaatcattt ggttacaaag ccattcagga tgggtgtcact  
3421 cgtgacatca ttctactga tgattgtttt gcaaataaac atgctggttt tgacgcatgg  
3481 tttagccagc gtgggtggtc atacaaaaaaat gacaaaagct gccctgttagt agctgtatc  
3541 attacaagag agatgggtt catatgtgcct ggcttaccgg gtactgtgt gagagcaatc  
3601 aatggtgact tcttgattt tctaccctgt gtttttagt ctgttggcaa catttgcac  
3661 acacccttcca aactcattga gtatagtgtat tttgttaccc ctgttgcgt tcttgcgt  
3721 gagtgtacaa ttttaagga tgcattggc aaacctgtgc catattgtta tgacactaat  
3781 ttgttagagg gttcttatttc ttatagtgag ctgcgtccag acactcgta tgfcattatg  
3841 gatggttcca tcatacattt ccctaaacact tacctggagg gttctgttagt agtagtaaca  
3901 acctttgtatg ctgagttactg tagacatgtt acatgcggaa ggccagaagt aggtatttgc  
3961 ctatctacca gtggtagatg ggttcttaat aatgagcattt acagagctt atcaggagtt  
4021 ttctgtgggtt ttgtatgcgtt gaatctcata gctaacaatctt ttactccctt tgcacacc  
4081 gtgggtgttt tagatgtgtc tgcttcagta gtggctgggtg gtattattgc catattgggt  
4141 acttgcgtt cttactactt tatgaaatttcc agacgtgtt ttgttagtca accatgtt  
4201 gtgtgtgtca atgcactttt gtttttgatg tcttcacta tactctgtct ggtaccagct  
4261 tacagtttc tgcggggagt ctactcagtc ttttactgtt acttgcattt ctatttcacc  
4321 aatgtatgtt catttttgc tcacccttca tggtttgcctt tttttctcc tatttgcct  
4381 ttttggataa cagaatctt tttttttttt atttcttgc agcactgcca ttgggtttt  
4441 aacaactatc tttagaaaaag agtcatgtttt aatgggtta cattttagtac ctgcaggag  
4501 gtcctttgtt gtacccccc gtcacaacaag gaaatgtacc taaaatttgcg tagcggagaca  
4561 ctgttgcaccc ttacagatgta taacaggtt ctgtcttat ataacaatgtt caagtattt  
4621 agtggagcc ttagatctac cagctatgtt gaagcagctt gtcgtccactt agcaaggct  
4681 ctaatgactt tttagcaactc agggtgtatg gtttcttacc aaccaccaca gacatcaatc  
4741 acttgcgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4801 ggggtgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4861 acatgtatc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
4921 gaagatctgc tcatcgaa atccaaccat agtttttttt tttttttttt tttttttttt  
4981 cttcgttta ttggccattt tttttttttt tttttttttt tttttttttt tttttttttt  
5041 aacccttcaaga caccctaaatgta taaaattttttt tttttttttt tttttttttt  
5101 cttagatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5161 accattaaatgta tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5221 gatttgcgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5281 accgtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5341 ggttacagaca caaccataac attaaatgtt ttggcatggc tttttttttt tttttttttt  
5401 ggttacatgtt ggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5461 atgaatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5521 gtcacccatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5581 ggttacatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5641 gatgttgcgtt gacaatgtt tttttttttt tttttttttt tttttttttt tttttttttt  
5701 ggcactatc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5761 acacatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5821 attatggcaatgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5881 ttgtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
5941 agtgggtgtt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
6001 aggtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt  
6061 cgccactatc tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt

**FIGURE 21 (C)**

6121 gtttacaaag tctactatgg taatgttta gatacaagcta ttccatgtg ggcccttagtt  
6181 atttcgttaa cctctaacta ttctgggtgc gttacgacta tcatgtttt agcttagagct  
6241 atagtgttg tgggtgtga gtattatcca ttgttattta ttaactggcaa caccttacag  
6301 tgatcatgc ttgttatttg ttctttaggc tattgtgtc gctgcactt tggcccttcc  
6361 tggttactca accgttactt caggcttact ctgggtgtt atgactactt ggtcttaca  
6421 caagaattta ggttatgaa ctcccagggg cttttgcctc ctaagagtag tattgtatgc  
6481 ttcaagctta acattaagg tttgggttgggatgggtaaac catgtatcaa ggttgtact  
6541 gtacagtctta aatgtctgaa cgtaaagtgc acatctgtgg tactgctctc ggttcttcaa  
6601 caacttagag tagagtcatc ttctaaatttgggcacaat gtgtacaact ccacaatgat  
6661 attcttcttgc caaaagacac aactgaagct ttccgagaaga tgggttctct tttgttgc  
6721 ttgtatcca tgcagggtgc ttgttagacatt aatagggtgt gcgaggaaat gtcgataac  
6781 cgtgttactt tcaggctat tgcttcagaa tttagtctt taccatcata tgeccctt  
6841 gcccactgccc aggaggccta tgagcaggct gtagctaatg tggattctga agtgcgttctc  
6901 aaaaaatggaa agaaatctt gaatgtggct aatctgagt ttgaccgtga tgggttgc  
6961 caacgcaagt tggaaaatggc ggcagatcg gctatgaccc aatgtacaa acaggcaaga  
7021 tctgaggaca agagggccca agtgcgttct gctatgcaaa caatgtctt cactatgca  
7081 aggaagcttgc ataatgtgc acttaacaac attatcaaca atgcgcgtga tgggttgc  
7141 ccactcaaca tcataccatt gactacagca gccaaactca tgggttgc ccctgatt  
7201 ggttacacta agaacacttg tgatggtaac acctttacat atgcacatgc actctggaa  
7261 atccagcaag ttgttgc ggtatgc ggtatgc aatgttcaac ttgttgc aatcatggac  
7321 aatttccaaaa atttggcttgc gcctttttt gttacagctc taagagccaa ctctatgtt  
7381 aaactacaga ataatgaact gagttccagta gcactacgc agatgtcctg tgggttgc  
7441 accacacaaaa cagttgtiac tgatgacaat gcacttgcct actataacaa ttcaagggg  
7501 ggttagtttgc ttgttgcatt actatcagac caccacatc tcaatggc tagattccct  
7561 aagagtgttgc gtacaggatc aatttacaca gaactggaaac caccttgc tgggttgc  
7621 gacacacaaaa aagggccctaa aatgttgc tcaaaaggctt aacaacacca  
7681 aatagaggta ttgttgc tgggttgc tgggttgc tgggttgc tgggttgc  
7741 acagaatgttgc ctggcaatttgc aacttgc ttttttttttgc tgggttgc  
7801 aaagcatata aggattacactt agcaagtgga ggacaacccaa tcaccaacttgc tgggttgc  
7861 ttgttgc acactggatc aggacaggca attactgttgc caccagaagc taatgttgc  
7921 caaggttgc ttgttgc ttcatttttttgc ttttttttttgc tgggttgc  
7981 aatcttacaa gatttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8041 aatgttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8101 ggttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8161 acgttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8221 ctgttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8281 caaaatgttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8341 tagacttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8401 ttgttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8461 tagatgttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8521 atttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8581 ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8641 tagagaatcc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8701 ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8761 ctttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8821 ctttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8881 ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
8941 ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
9001 atttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
9061 gtatcttca ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
9121 ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc  
9181 accatttttttgc ttttttttttgc ttttttttttgc ttttttttttgc tgggttgc

**FIGURE 21 (D)**

9241 tcagttcaa ggaacttta gtgtatgc tgatccagc tatgcattca gcttcggca  
9301 atttttgtt agataaacgc actacatgtt ttcagtgc tgcactaaca aacaatgttg  
9361 ctttcaaac tgtcaaaccc ggtaattta ataaagactt ttatgacttt gctgtgtcta  
9421 aaggttctt taaggaaagg agttctgtt aactaaaaca ctcttctt gtcaggatg  
9481 gcaacgctgc tatcatgttat atcgatataa tctgccaaca atgtgtata  
9541 tcagacaact cctatcgta gttgaagttt ttgataataa ctttgcattt tacgtgttg  
9601 gctgtttaa tgccaaacca gtaatcgta acaatctgg taaatcagct ggttccat  
9661 ttaataaatg gggtaaggct agactttt atgactcaat gagttatgag gatcaagatg  
9721 cactttcgc gtataactaag cgtatgtca tccctactat aactcaaatg aatcttaagt  
9781 atgccattag tgcaaagaat agagctcgca ccgttagctgg tgtctctatc tgtagtacta  
9841 tgacaaatag acagttcat cagaaatit tgaagtcaat agccgccact agaggagcta  
9901 ctgtgtaat tggacaacaagg aagtttacg gggctggca taatatgtta aaaactgtt  
9961 acagtgtatg agaaactcca caccttatgg ttgggatata cccaaatgt gacagagcca  
10021 tgcctaaccat gcttaggata atggcccttc ttgtcttgc tcgcaaaccat aacactgtt  
10081 gtaacttatac acaccgtttc tacaggttag ctaacgagtg tgcgcaagta ttaagtgaga  
10141 tggcatgtg tggggctca ctatatgtta aaccagggtgg aacatcatcc ggtgtatgcta  
10201 caactgccta tgcataatgtt gtcttaaca ttgtcaagc tgcacagcc aatgtaaatg  
10261 cacttttc aactgtatgtt aataagatag ctgacaagta tgcgcataat ctacaacaca  
10321 ggctctatga gtgtcttat agaaataggg atgtgtatca tgaattcggt gatgagttt  
10381 acgtttaccct gcgtaaacat ttctccatga tgattcttc tgatgtatgc gttgtgtgct  
10441 ataacagttaa ctatgcggct caagggttag tagcttagcat taagaacttt aaggcagttc  
10501 ttattatca aaataatgtt ttcatgtcg aggcaaaatg ttggac

## FIGURE 22

1 gtacccat gaaggcacc aaactgctgc atttagagac gtacttgtt ttttaataaa  
61 acgaacaaat taaaatgtct gataatggac cccaatcaaa ccaacgtagt gcccccgc  
121 ttacattgg tggaccaca gattcaactg acaataacca gaatggagga cgcaatgggg  
181 caaggccaaa acagcgcga ccccaagggt tacccaataa tactgcgtct tggtcacag  
241 ctctcaactca gcatggcaag gaggaacta gattccctcg aggccaggc gttcaatca  
301 acaccaatag tggccagat gaccaaattg gctactaccg aagagctacc cgacgagtc  
361 gtgggtgtga cggccaaatg aaagagctca gccccagatg gctacttat tacctaggaa  
421 ctggccaga agcttcactt ccctacggcg ctaacaaaga aggcatcgta tgggtgcaa  
481 ctgagggagc ctgtataaca cccaaagacc acattggcac ccgcaatccct aataacaatg  
541 ctgcaccgt gctacaactt cctcaaggaa caacattgcc aaaaggcttc tacgcagagg  
601 gaagcagagg cggcagtcaa gccttctc gctccatc acgttagtcgc ggtaattcaa  
661 gaaattcaac tcctggcagc agtagggaa attctccatc tcaatggct agcggaggtg  
721 gtgaaactgc cctcgcccta ttgtgtctag acagattgaa ccagcttgag agcaaagttt  
781 ctggtaaagg ccaacaacaa caaggccaaa ctgtcactaa gaaatctgt gctgaggcat  
841 ctaaaaagcc tcgccaaaaaa cgtactgcca caaaacagta caacgtcact caagcatttg  
901 ggagacgtgg tccagaacaa acccaaggaa atttcgggaa ccaagaccta atcagacaag  
961 gaactgatta caaacattgg ccgccaaatig cacaatttgc tccaaatgcc tctgcattct  
1021 ttggaatgtc acgcattggc atgaaagtca caccttcggg aacatggctg acttatcatg  
1081 gagccattaa attggatgac aaagatccac aattcaaaaga caacgtcata ctgtgaaca  
1141 agcacattga cgcataaaaa acattccac caacagagcc taaaaaggac aaaaagaaaa  
1201 agactgtga agctcgcct ttggccaga gacaaaagaa gcagccact gtgactcttc  
1261 ttcctgcggc tgacatggat gattctcca gacaacttca aattccatg agtggagctt  
1321 ctgcgtattc aactcaggca taaacactca tgatgaccac acaaggcaga tggctatgt  
1381 aaacgtttc gcaattccgt ttacgataca tagtctactc ttgtgcagaa tgaattctcg  
1441 taactaaaca gcacaagtag gtttagttaa cttaatctc acatagcaat cttaatcaa  
1501 tgttaacat tagggaggac ttgaaagagc caccacattt tcatcgaggc cacgcccggagt  
1561 acgatcgagg gtacagtgaa taatgttgg gagagctgcc tatatggaag agccctaattg

**FIGURE 23**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNNGGRNGARPQRRPQGLPNNTASWFTALTQHGKEEL  
RFPRGQGVPIINTNSGPDDQIGYYRRAVRRVRGGDGKMKELSPRWYFYYLGTGPEASLPYGANKEG  
IVWVATEGALNTPKDHI GTRNPNNNAATVLQLPQGTTLPKGFYAEGSRGGSQASSRSSSRSGNS  
RNSTPGSSRGNSPARMASGGGETALALLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPR  
QKRTATKQYNVTQAFGRRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEV  
TPSGTWLTYHGAIKLDDKDPFKDNVILLNKHDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQ  
PTVTLLPAADMDDFSRQLQNSMSGASADSTQA

**Figure 24**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPQKQRRPQ  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRVRGGDGKM  
KELSPRWYFYLGTPGPEASLPYGANKEGIVVWATEGALNTPKDHIGHTRNPNNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPARMASGGGET  
ALALLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATQYNVTQAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

**FIGURE 25**

(A)

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPQKRRPQ  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRVRGGDGKM  
KELSPRWYFYYLGTGPEASLPYGANKEGIVVVATEGALNTPKDHIGHTRNPNNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPARMASGGGET  
ALALLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATKQYNVTQAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWQIAQFAPSASAFFGMSRIGMEAAPSGTWLTY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

(B)

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPQKRRPQ  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRVRGGDGKM  
KELSPRWYFYYLGTGPEASLPYGANKEGIVVVATEGALNTPKDHIGHTRNPNNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPARMASGGGET  
ALALLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATKQYNVTQAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWQIAQFAPSASAFFGMSRIGMEAAPSGTWLTY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

**FIGURE 26**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPQKRRPQ  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRVRGGDGKM  
KELSPRWYFYLGTPGPEASLPYGANKEGIVVWATEGALNTPKDHI GTRNPNNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPARMASGGGET  
ALALLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATKQYNVTQAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 27

MFIFLLFLTLTSGSDLRCTTFDDVQAPNYTQHTSSMRGVYYPD  
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFGNPVIPFKDGIYFAATEKSNVVRGVW  
FGSTMNNKSQS VII INNSTNVVIRACNFELCDNPFFAVSKPMGTQTHMIFDNAFNCT  
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFPLYVYKGYQPIDVVRDLPSGFNTLKP  
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVGYLKPTTFMLKYDENGTTDAV  
DCSQNPLAELKCSVKSFEIDKGIYQTSNFRVVPNGDVVRFPNITNLCPFGEVFNATKF  
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD  
DVRQIAPGQTGVIADYNKLPDDFMGCVLAWNTRNIDATSTGNYNYKYRYLRHGKLRP  
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTGIGYQPYRVVVLSEL NAPA  
TVCGPLKLSTDLIKNQCVNFNFNGLTGTGVLTSSKRFQPFQQFGRDVSDFTDSVRDPK  
TSEILDISPCSFGGSVITPGTNASSEAVLYQDVNCTDVSTAIHADQLTPAWRIYST  
GNNVFQTQAGCLIGAEHVDTSYECDIPIGAGICASYHTVSLRSTSQKSIVAYTMSLG  
ADSSIAYSNNNTIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS  
FACTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLK YFGGFNFSQILPDPLKPTKRS  
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLLTDDMIAAYT  
AALVSGTATAGWTGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS  
QIQESLTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRLDKVEAE  
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDGKGYH  
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAI CHEGKAYFPREGVFVNGTSWFITQ  
RNFFSPQIITTDNTFVSGNCVVIGIINNTVYDPLQPELDSFKEELDKYFKNHTSPDV  
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA  
GLIAIVMV TILLCCMTSCCSCLKGACSCGSCCKFDEDDSEPVLKGVKLHYT

**FIGURE 28**

MFIFLLFLTLTSGSDLRCTTFDDVQAPNYTQHTSSMRGVYYPD  
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFGNPVIPFKDGIYFAATEKSNVVRGWF  
FGSTMNNKSQSVIIINNSTNVVIRACNFELCDNPFFAVSKPMGTQTHMIFDNAFNCT  
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFPLYVYKGYQPIDVVRDLPSGFNTLKP  
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVGYLKPTTFMLKYDENGTTDAV  
DCSQNPLAELKCSVKSFEIDKGIYQTSNFRVVPSGDVVRFPNITNLCPFGEVFNATKF  
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD  
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTRNIDATSTGNYNKYRYLRHGKLRP  
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTGIGYQPYRVVVLSELLENAPA  
TVCGPKLSTDLIKNQCVNFNFNGLTGTGVLTSSKRFQPFQQFGRDVSDFTDSVRDPK  
TSEILDISPACFGGSVITPGTNASSEAVLYQDVNCTDVSTAIHADQLTPAWRIYST  
GNNVFQTQAGCLIGAEHVDTSYECDIPIGAGICASYHTSLLRSTSQKSIVAYTMSLG  
ADSSIAYSNNNTIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS  
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKPTLKYGFFNFSQILPDPLKPTKRS  
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLTDMMIAAYT  
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS  
QIQESLTTSTALGKLQDVVNQNAQALNTLVQLSSNFGAISSVLNDILSRLDKVEAE  
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDGKGYH  
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAIACHEGKAYFPREGVFVNGTSWFITQ  
RNFFSPQIITTDNTFVSGNCVVIGIINNTVYDPLQPELDSKEELDKYFKNHTSPDV  
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA  
GLIAIVMVТИLLCCMTSCSCLKGACSCGSCCKFDEDDSEPVVLKGVKLHYT

**FIGURE 29**

MFIFLLFLTLTSGSDLRCTTFDDVQAPNYTQHTSSMRGVYYPD  
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFGNPVIPFKDGIYFAATEKSNVVRGWV  
FGSTMNNKSQS VII ISNSTNVVIRACNFELCDNPFFAVSKPMGTQTHMIFDNAFNCT  
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGSLYVYKGYQPIDVVRLPSGFNTLKP  
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVGYLKPTTFMLKYDENGTTDAV  
DCSQNPLAELKCSVKSFEIDKG IYQTSNFRVVPNGDVVRFPNITNLCPFGEVFNATKF  
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD  
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTGNIDATSTGNYDYKYRYLRHGKL RP  
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTGIGYQPYRVVVL SFELLNAPA  
TVCGPKLSTD LIKNQCVNFNFNGLTGTGVLPSSKRFQPFQQFGRDVSDFTDSVRDPK  
TSEILDISPCSFGGVSVITPGTNASSEAVLYQDVNCTDVSTA I HADQLTPAWRIYST  
GNNVFQTQAGCLIGAEHVDTSYECDIPIGAGICASYHTVSL RSTS QKSIVAYTMSLG  
ADSSIAYSNN TIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS  
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLK YFGGFNFSQILPDPLKPTKRS  
FIEDLPFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLL TDDMIAAYT  
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS  
QIQESLTTSTALGKLQDVVNQNAQALNTLVQLSSNFGAISSVLNDILSRLDKVEAE  
VQIDRLITGRLQSLQTYVTQQLIRAAGIRASANLAATKMSECVLGQSKRVD FCGKG YH  
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAP AICHECKAYFPREGVFVNGTSWFITQ  
RNFFSPQI ITTDNTFVSGNCVVIGI INNTVYDPLQPELDSFKEELDKYFKNHTSPDV  
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA  
GLIAIVMV TILLCCMTSCSCLKGACSCGSCCKFDEDDSEPV LKG VKLHYT

**FIGURE 30**

(A)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNRNR  
LYIIKLVFLWLLWPVTLACFVLAAVYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF  
ARTRSMWSFNPETNILLNVPLRGТИVTRPLMESELVIGAVIIRGHLRMAGHPLGRCDI  
KDLPKEITVATSRTLSYYKLGASQRVGTDMSGFAAYNRYRIGNYKLNTDHAGSNDNIAL  
LVQ

(B)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNRNR  
LYIIKLVFLWLLWPVTLACFVLAAVYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF  
ARTRSMWSFNPETNILLNVPLRGТИVTRPLMESELVIGAVIIRGHLRMAGHSLGRCDI  
KDLPKEITVATSRTLSYYKLGASQRVGTDMSGFAAYNRYRIGNYKLNTDHAGSNDNIAL  
LVQ

(C)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNRNR  
LYIIKLVFLWLLWPVTLACFVLAAVYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF  
ARTRSMWSFNPETNILPNVPLRGТИVTRPLMESELVIGAVIIRGHLRMAGHSLGRCDI  
KDLPKEITVATSRTLSYYKLGASQRVGTDMSGFAAYNRYRIGNYKLNTDHAGSNDNIAL  
LVQ

(D)

MADNGTITVEELKQLLEQWNLVIGFLFLAWIMLLQFAYSNRNR  
LYIIKLVFLWLLWPVTLACFVLAAVYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF  
ARTRSMWSFNPETNILPNVPLRGТИVTRPLMESELVIGAVIIRGHLRMAGHSLGRCDI  
KDLPKEITVATSRTLSYYKLGASQRVGTDMSGFAAYNRYRIGNYKLNTDHAGSNDNIAL  
LVQ

**FIGURE 31**

**(A)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

**(B)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

**(C)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSPEGVPDLLV

**(D)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSPEGVPDLLV

**(E)**

MYSFVSEETGTLIVNSVLLFLAFVVFLLVTLAILTALRLCAYCC  
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

FIGURE 32 (A)

MESVLGVNEKTHVQLSLPVLQVRDVLRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLQPQEOPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRLNGGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP  
LNSKVVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTRCFGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIIVGDFHLNEEVAIILASFSASTSAFIDTIKSLSDYKSFKTIVESCGN  
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIIRSIFARTLDAANHSIPDLQRAA  
VTILDGISEQSLRLVDAMVYTSDLTNSVIIMAYVTGGLVQQTSQWLSNLLGTTVEKL  
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV  
NKALEMCIDQVTIAGAKLRSNLGEVFIAQSCKGLYRQCIRGKEQLQLLMPLKAPKEVT  
FLEGDSHDTVLTSEEVVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLLEIKDKEQ  
YCALSPLLATNNVFRALKGGAPIKGVTGEDTVWEVQGYKNVRITFELDERVDKVLNE  
KCSVYTVESGTEVTEFACVVAEAVVKTLPVSDLLTNMGIDLDEWSVATFYLFDAGE  
ENFSSRMYCSFYPPDEEEEDDAECEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR  
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTNDNAIKCVDIVKEAQSA  
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL  
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQLQCVQQT  
VRTQVYIAVNDKALYEQVVMMDYLDNLKPRVEAPKQEEPNTEDSKTEEKSVVQKPVDV  
KPKIKACIDEVTTLEETKFLTNKLLLADINGKLYHDSQNMLRGEDMSFLEKDAPYM  
VGDVITSGDIRCVVIPSKKAGGTTEMLSRALKKVPDEYITTYPGQGCAGYTLEEAKT  
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI  
QRKYKGIKIQEGIVDYGVRFFFYTSKEPVASIITKLNSLNEPLVTMPIGYVTHGFNLE  
EAARCMRSLKAPAVSVSSPDAVTTYNGYLTSKSEEHFVETVSLAGSYRDWSYSG

FIGURE 32 (B)

QRTELGVFLKRGDKIVYHTLESPVEFHLDGEVLSLDKLKSLLSLREVKTIVFTTVD  
NTNLHTQLVDMMSMTYGQQFGPTYLDGADVTKIKPHVNHEGKTFVLPSSDTLRSEAFE  
YYHTLDESFLGRYMSALNHTKKWKFQVGGLTSIKWADNNCYLSSVLLALQQLEVKFN  
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHLLQHANLESAKRVLN  
VVCKHCGQKTTLTGVEAVMYMGTLSYDNLKTGVSIPCVCGRDATQYLVQQESSFVMM  
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPVTD  
VFYKETSYTTIKPVSYKLDGVTYTEIEPKLDGYYKKDNAYYTEQPIDLVPTQPLPNA  
SFDFNFKLTCNSNTKFADDLNQMTGFTKPASRELSVTFFPDNGDVVAIDYRHYSASFKK  
GAKLLHKPIVWHINQATTKTFKPNTWCLRCLWSTKPVDTNSFEVLAVEDTQGMNDL  
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVVGNVILKPSDEGVKVTQELGHEDLMA  
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN  
CAKRLAQRFVNYYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIAKNSVKSVALCLDA  
GINYVKSPKFSKLFITIAMWLLLLSICLGSPLICVTAAGVLLSNFGAPSYCNGVRELYL  
NSSNVTTMDFCEGSFPSICLSGLDSLDSPALETIQVTISSYKLDLTILGLAAEWVL  
AYMLFTKFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF  
ASFYYIWKSYVHIMDGCTSSTCMMCYKRNRATRVECTTIVNGMKRSFYVYANGGRGFC  
KTHNWNCNCDFCTGSTFISDEVARDLSLQFKRPINPTDQSSYIVDSAVKNGALHL  
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGSLPININVFDGKSKCDESASKSASVYY  
SQLMCQPILLLQVLVSDVGDSTEVSVMFDAYVDTFSATFSVPMEKLKALVATAHSE  
LAKGVALDGVLSTFVSAARQGVVDTDVDTKDVECLKLSHSDLEVTGDSCNNFMLTY  
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSЛИWNVKDYMMSLSEQLRKQIRSAAKK  
NNIPFRLTCATTRQVVNVITTKISLKGKIVSTCFKMLKATLLCVLAALVCYIVMPV  
HTLSIHGYTNEIIGYKAIQDGVRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC  
PVVAAITREIGFIVPGLPGTVLRAINGDFLHFLPRVFSAVGNICYTPSKLIEYSDFA  
TSACVLAECTIFKDAMGKPVPCYDTNLLEGSISYSELRPDTRYVLMGSIIQFPNT  
YLEGSVRVVTTFDAEYCRHGTGERSEVGICLSTSGRWVLNNEHYRALSGVFCGV DAMN

FIGURE 32 (C)

LIANIFTPLVQPVGALDVSASVVAGGIIAILVTCAAYYFMKFRRVFGEYNHVVAANAL  
LFLMSFTILCLVPAYSFLPGVYSVFYLYLTFTNDVSFLAHLQWFAMFSPIVPFWIT  
AIYVFCISLKCHWFFNNYLRKRVMFNGVTFSTFEEAALCTFLLNKEMYLCLRSETLL  
PLTQYNRYLALYNKYKYFSGALDTTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI  
TSAVLQSGFRKMAFPSKGVEGCMVQVTCGTTLNGWLDDTVYCPRHVICTAEDMLNP  
NYEDLLIRKSNSHSLVQAGNVQLRVIGHSMQNCLLRLKVDTSNPKTPKYKFVRIQPGQ  
TFSVLACYNGSPSGVYQCAMPNHTIKGSFLNGSCGVFNIDYDCVSFCYMHHMELP  
TGVHAGTDLEGKFYGPVDRQTAQAAGTDTTITLNVLAWLAAVINGDRWFLNRFTTT  
LNDFNLVAMKYNYEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS  
TILEDEFTPFDVVRQCSGVTFQGKFKKIVKGTHHWMLLTFLTSLILVQSTQWSLFFF  
VYENAFLPFTLGIMAIAACAMLLVKHKHAFLCLFLPSLATVAYFNMVYMPASWVMRI  
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLMNVITLVYKV  
YYGNALDQAIISMWALVISVTSNYSGVVTTIMFLARAIVFVCVEYYPLLFITGNTLQCI  
MLVYCFGLGYCCCCYFGLFCLLNRYFRLTLGVYDYLVSTQEFRYMSQGLLPPKSSIDA  
FKLNKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH  
NDILLAKDTTEAFEKMSLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS  
YAAYATAQEAYEQAVANGDSEVVLKKLKSLNVAKSEFDRDAAMQRKLEKMAQAMTQ  
MYKQARSEDKRAKVTSAMQTMLFTMLRKLDNDALNNIINNARDGCVPLNIIPLTAAK  
LMVVVPDYGTYKNTCDGNTFTYASALWEIQQVVDADSKIVQLSEINMDNSPNLAWPLI  
VTALRANSAVKLQNNELSPVALRQMSCAAGTTQACTDDNALAYYNNSKGGRFVLALL  
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVLYFIKGNNLNRMV  
GSLAATVRLQAGNATEVPANSTVLSFCAFADPAKAYKDYLASGGQPITNCVKMLCTH  
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND  
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFLNGFAV

FIGURE 33 (A)

MESLVLGVNEKTHVQLSLPVLQVRDVLRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLQPQEOPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRLNGGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP  
LNSKVVKVIQPRVEKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTFCGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIIVGDFHLNEEVAILLASFSASTSAFIDTIKSLSFYKSFKTIVESCGN  
YKVTKGKPVKGAWNIGQQRSQLTPLCGFPSQAAGVIIRSIFARTLDAANHSIPDLQRAA  
VTILDGISEQSLRLVDAMVYTSDLTNSVIIMAYVTGGLVQQTSQWLSNLLGTTVEKL  
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV  
NKALEMCIDQVTIAGAKLRSNLGEVFIAQSKGLYRQCIRGKEQLQLLMPLKAPKEVT  
FLEGDSHDTVLTSEEVVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLLEIKDKEQ  
YCALSPLLATNNVFRULKGGAPIKGVTGEDTVWEVQGYKNVRITFELDERVDKVLNE  
KCSVYTVESGTEVTEFACVVAEAVVKTLPVSDLLTNMGIDLDEWSVATFYLFDAGE  
ENFSSRMYCSFYPPDEEEEDDAECEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR  
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTNDNAIKCVDIVKEAQSA  
NPMVIVNAANIHLKHGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL  
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQSLQCVQT  
VRTQVYIAVNDKALYEQVVMYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV  
KPKIKACIDEVTTLEETKFINTKLLLADINGKLYHDSQNMLRGEDMSFLEKDAPYM  
VGDVITSGDIRCVVIPSKKAGGTTEMLSRALKKVPVDEYITTYPGQGCAGYTLLEEAKT  
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI  
QRKYKGIKIQEGIVDYGVRFYYTSKEPVASIITKLNSLNEPLVTMPIGYVTHGFNLE  
EAARCMRSLKAPAVVSVSSPDAVTTYNGYLTSSSKTSEEHFVETVSLAGSYRDWSYSG

FIGURE 33 (B)

QRTELGVFALKRGDKIVYHTLESPVEFHLDGEVLSLDKLKSLLSLREVKTIKVFTTVD  
NTNLHTQLVDMMSMTYQQQFGPTYLDGADVTKIKPHVNHEGKTFVLPSSDTLRSEAFE  
YYHTLDESFLGRYMSALNHTKKWFHQVGGLTSIKWADNNCYLSSVLLALQQLEVKFN  
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHLLQHANLESAKRVLN  
VVCKHCGQKTTLTGVEAVMYMGTLSYDNLKTGVSIPCVCGRDATQYLVQQESSFVMM  
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPVTD  
VFYKETSYTTIKPVSYKLDGVTYTEIEPKLDGYYKKDNAYYTEQPIDLVPTQPLPNA  
SFDFNFKLTCNSNTKFADDLNQMTGFTKPASRELSVTFFPDNGDVVAIDYRHYSASFKK  
GAKLLHKPIVWHINQATTKTFKPNTWCLRCLWSTKPVDTNSFEVLAVEDTQGMDNL  
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVVGNVILKPSDEGVKVTQELGHEDLMA  
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITSN  
CAKRLAQRFVNYYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIAKNSVKSVALCLDA  
GINYVKSPKFSKLFITIAMWLLLLSICLGSPLICVTAAGVLLSNFGAPSYCNGVRELYL  
NSSNVTTMDFCEGSFPSICLSGLDSLDSPALETIQVTISSYKLDLTIILGLAAEWVL  
AYMLFTKFFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF  
ASFYYIWKSYVHIMDGCTSSTCMMCYKRNRATRVECTTIVNGMKRSFYVYANGGRGFC  
KTHNWNCNCDFCTGSTFISDEVARDLSQFKRPINPTDQSSYIVDSAVKNGALHL  
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGSLPININVFDGKSKCDESASKSASVYY  
SQLMCQPILLLQALVSDVGDSTEVSVMFDAYVDTFSATFSVPMEKLKALVATAHSE  
LAKGVALDGVLSTFVSAARQGVVDTDVDTKDVIIECLKLHSDEVTGDSCNNFMLTY  
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNWKDYMSLSEQLRKQIRSAAKK  
NNIPFRLTCATTRQVVNVITTKISLKGKIVSTCFKMLKATLLCVLAALVCYIVMPV  
HTLSIHGYTNEIIIGYKAIQDGVTRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC  
PVVAAITREIGFIVPGLPGTVLRAINGDFLHFPLRVFSAVGNICYTPSKLIEYSDFA  
TSACVLAECTIFKDAMGKPVPCYDTNLLEGSISYSELRPDTRYVLMGSIIQFPNT  
YLEGSVRVVTTFDAEYCRHGTGERSEVGICLSTSGRWVLNNEHYRALSGVFCGV DAMN

FIGURE 33 (C)

LIANIFTPLVQPGALDVSASVVAGGIIAILVTCAAYYFMKFRRVGEYNHVVAANAL  
LFLMSFTILCLVPAYSFLPGVYSVFYLYLTFTNDVSFLAHLQWFAMFSPIVPFWIT  
AIYVFCISLKCHWFFNNYLRKRVMFNGVTFSTFEEAALCTFLLNKEMYLKLRLSETLL  
PLTQYNRYLALYNKYKYFSGALDTTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI  
TSAVLQSGFRKMAFPSKGVEGCMVQVTCGTTLNGLWLDDTVYCPRHVICTAEDMLNP  
NYEDLLIRKSNSHSLVQAGNVQLRVIHGSMQNCLLRKVDTSNPKTPKYKFVRIQPGQ  
TFSVLACYNGSPSGVYQCAMPNHTIKGSFLNGSCGSVGFNIDYDCVSFCYMHHMELP  
TGVHAGTDLEGKFYGPFDVRTQTAQAAGTDTTITLNVLAWLYAAVINGDRWFLNRFTTT  
LNDFNLVAMKYNYEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS  
TILEDEFTPFDVVRQCSGVTQGFKKIVKGTHHWMLLTFLTSLLILVQSTQWSLFFF  
VYENAFLPFTLGIMAIAACAMLLVKHKHAFLCLFLLPSLATVAYFNMVYMPASWVMRI  
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLMNVITLVYKV  
YYGNALDQAISMWALVISVTSNYSGVVTTIMFLARAIVFVCVEYYPLLFITGNTLQCI  
MLVYCFGLGYCCCCYFGLFCLLNRYFRLTLGVYDYLVSTQEFRYMQNSQGLLPPKSSIDA  
FKLNKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH  
NDILLAKDTTEAFEKMSLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS  
YAAYATAQEAYEQAVANGDSEVVLKKLKKSLNVAKSEFDRDAAMQRKLEKMAQAMTQ  
MYKQARSEDKRAKVTSAMQTMLFTMLRKLDNDALNNIINNARDGCVPLNIIPLTAAK  
LMVVVPDYGYKNTCDGNTFTYASALWEIQQVVDADSKIVQLSEINMDNSPNLAWPLI  
VTALRANSAVKLQNNELSPVALRQMSCAAGTTQACTDDNALAYYNNSKGGRFVLALL  
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGMLNLRGMVL  
GSLAATVRLQAGNATEVPANSTVLSFCAFADVPAKAYKDYLASGGQPITNCVKMLCTH  
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND  
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFFKRVCGVSAARLTPCGTG  
TSTDVVYRAFDIYNEKVAGFAKFLKTNCRFQEKEDEEGNLLDSYFVVKRHTMSNYQHE

FIGURE 33 (D)

ETIYNLVKDCPAVAVHDFFKFRVDGDMVPHISRQLTKYTMADLVYALRHFDEGNCDT  
LKEILVTYNCCDDDYFNKKDWYDFVENPDILRVYANLGERVRQSLLKTVQFC DAMRDA  
GIVGVLTLDNQDLNGNWYDFGDFVQVAPCGVPIVDSYYSLMPILTTRALAAESHM  
DADLAKPLIKWDLLKYDFTEERLCLFDTRYFKYWDQTYHPNCINCLDDRCILHCANFNV  
LFSTVFPPSTSFGPLVRKIFVDGVPVVSTGYHFRELGVHNQDVNLHSSRLSF KELLV  
YAADPAMHAASGNLLDKRTTCSVAALTNNAFQTVKPGNFNKDFYDFAVSKGFFKE  
GSSVELKHFFAQDGNAIASDYDYYRYNLPTMCDIRQLLFVVEVVDKYFDCYDGGCIN  
ANQVIVNNLDKSAGFPFNKGKARLYYDSMSYEDQDALFAYTKRNVIPTITQMNLKYA  
ISAKNRARTVAGVSICSTMNRQFHQKLLKSIAATRGATVVIGTSKFYGGWHNMLKTV  
YSDVETPHLMGWDYPKCDRAMPNMLRIMASLVLARKHNTCCNLSHRFYRLANECAQVL  
SEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVR  
NLQHRLYECLYRN RDVDHEFVDEFYAYLRKHF SMMILSDDAVVCYNSNYAAQGLVASI  
KNFKAVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMLVKQGDDYVYLPYPDPSRI  
LGAGCFVDDIVKTDGTLMIERFVSLAIDAYPLTKHPNQEYADVFLYLYQYIRKLHDEL  
TGHMLDMYSVMLTN DNTSRYWEPEFYEA MYTPHTVLQAVGACVLCNSQTSLRCGACIR  
RPFLCCKCCYDHVISTSHKLVL SVNPYVCNAPGCDVTDTQLYLGGMSYYCKSHKPPI  
SFPLCANGQVFGLYKNTCVGSDNVTDFNAIATCDWTNAGDYILANTCTERLKLFAAET  
LKATEETFKLSYGIATVREVLSRELHLSWEVGKPRPPLNRNYVFTGYRVTKNSKVQI  
GEYTFEKGDYGD AVVYRGTTYKLN VGDYFV L TSHTVMPLSAPTL VPQEHYVRITGLY  
PTLNISDEFSSNVANYQKVGMQKYSTLQGPPGTGKSHFAIGLALY YPSARI VYTACSH  
AAVDALCEKALKYLPIDKCSRIIPARARVECFDKFKVN STLEQYVFCTVN ALPETTAD  
IVVFDEISMATNYDLSVVNARLRAKHYVYIGDPAQLPAPRTLLTKGTLEPEYFNSVCR  
LMKTIGPDMFLGTCRRCPAEIVDTV SALVYDNKLKAHKDKSAQCFKMFYKGVI THDVS  
SAINRPQIGVVREFLTRNPAWRKAVFISPYNSQNAVASKILGLPTQTVDSSQGSEYDY  
VI FTQTTEAHSCNVNRFNVAITRAKIGILCIMS RDLYDKLQFTSLEIPRRNVATLQ

FIGURE 33 (E)

AENVTGLFKDCSKI ITGLHPTQAPTHLSVDIKFKTEGLCVDIPGI PKDMTYRRLISMM  
GFKMNYQVNGYPNMFITREEAIRHVRAWIGFDVEGCHATRDAVGTNLPLQLGFSTGVN  
LVAVPTGYVDTENNTEFTRVNAKPPPGDQFKHLIPLMYKGLPWNVVRIKIVQMLSDTL  
KGLSDRVVFVLWAHGFELTSMKYFVKIGPERTCCLCDKRATCFSTSSDTYACWNHSVG  
FDYVYNPFMIDVQQWGFTGNLQSNHDQHCQVHGNAHVASCDAIMTRCLAVHECFVKRV  
DWSVEYPIIGDELRVNSACRKVQHMVVKSALLADKFVLHDIGNPKAIKCVPQAEEVW  
KFYDAQPCSDKAYKIEELFYSYATHHDKFTDGVCLFWNCNVDRYPANAIVCRFDTRVL  
SNLNLPGCDGGSLYVNKHAFHTPAFDKSAFTNLKQLPFFYYSDSPCESHGKQVVSDID  
YVPLKSATCITRCNLGGAVCRHHANEYRQYLDAYNMMISAGFSLWIYKQFDTYNLWNT  
FTRLQSLENVAYNVVNKGHF DGHAGEAPVSIINNAVYTKVDGIDVEIFENKTTLPVNV  
AFELWAKRNIKPVPEIKILNNLGVDIAANTVIWDYKREAPAHVSTIGVCTMTDIAKKP  
TESACSSLTVLFDGRVEGQVDLFRNARNGVLITEGSVKGLTPSKGP AQASVNGVTLIG  
ESVKTQFNYFKKVDGIIQQLPETYFTQSRDLEDFKPRSQMETDFLELAMDEFIQRYKL  
EGYAFEHIVYGDFSHGQLGLHLMIGLAKRSQDSPLKLEDFIPMDSTVKNYFITDAQT  
GSSKCVCVIDLLLDDFVEIIKSQDLSVISKKVTIDYAEISFMLWCKDGHVETFYP  
KLQASQAWQPGVAMPNLYKMQRMLLEKCDLQNYGENAVIPKGIMMNVAKYTQLCQYLN  
TTLTLPYNNMRVIHFGAGSDKGVAPGTAVLRQWLPTGTLVDSLNDFVSDADSTLIG  
DCATVHTANKWDLIISDMYDPRTKHVTKENDSKEGFFTYLCGFIKQKLALGGSIAVKI  
TEHSWNADLYKLMGHFSWWTA FVTNVNASSSEAFLIGANYLGKPKEQIDGYTMHANYI  
FWRNTNPIQLSSYSLFDMSKFPLKLRGTAVMSLKENQINDMIYSLLEKGRLIIRENNR  
VVVSSDILVNN

**FIGURE 34 (A)**

RVCVSAARLTPCGTGTSTDVVYRAFDIYNEKVAGFAKFLKTNC  
CRFQEKEDEGNLLDSYFVVKRHTMSNYQHEETIYNLVKDCPAVAHVDFFKFRVDGDMV  
PHISRQRLTKYTADLVYALRHFDEGNCDTLKEILVTYNCCDDYFNKKDWYDFVENP  
DILRVYANLGERVRQSLKTVQFC DAMRDAGIVGVLTLDNQDLNGNWYDFGDFVQVAP  
GCGVPIVDSYYSLMPILTLTRALAAESHMDADLAKPLIKWDLLKYDFTEERLCLFDR  
YFKYWDQTYHPNCINCLDDRCILHCANFNVLFSTVFPPTSFGPLVRKIFVDGVPFVVS  
TGYHFRELGVVHNQDVNLHSSRLSFKELLVYAADPAMHAASGNLLDKRTTCFSVAAL  
TNNVAFQTVKPGNFNKDFYDFAVSKGFFKEGSSVELKHFFAQDGNAISDYDYYRYN  
LPTMCDIRQLLFVVEVVDKYFDCYDGGCINANQVIVNNLDKSAGFPFNKGKARLYYD  
SMSYEDQDALFAYTKRNVIPTITQMNLYKAISAKNRARTVAGVSICSTMNRQFHQKL  
LKSIAATRGATVVIGTSKFYGGWHNMLKTVYSDVETPHLMGWDYPKCDRAMPNMLRIM  
ASLVLARKHNTCCNLSHRFYRLANECAQVLSEMVMCGGSLYVKPGGTSSGDATTAYAN  
SVFNICQAVTANVNALLSTDGNKIADKYVRNLQHRLYECLYRN RDVDHEFVDEFYAYL  
RKHF SMMI LSDDAVVCYNSNYAAQGLVASIKNFKAVLYQNNVFMSEAKCWTETDLTK  
GPHEFCSQHTMLVKQGDDYVYLPYPDPSRILGAGCFVDDIVKTDTLMIERFVSLAID  
AYPLTKHPNQEYADV FHLYLQYIRKLHDELTGHMLDMYSVMLTNDNTSRYWEPEFYEA  
MYTPHTVLQAVGACVLCNSQTSLRGACIRRPFLCKCCYDHVISTSHKLVL SVN PYV  
CNAPGCDVTDVTQLYLGGMSYYCKSHKPPISFPLCANGQVFG LYKNTCVGSDNVTDFN  
AIATCDWTNAGDYILANTCTERLKLF AAETLKATEETFKLSYGIATVREVLSRELHL  
SWEVGKPRPPLNRNYVFTGYRVTNSKVQIGEYTFEKGDYGD AVVYRGTTTYKLN VGD  
YFV LTSHTVMPLSAPTLVPQEHYVRITGLYPTLNISDEFSSNVANYQKVG M QKYSTLQ  
GPPGTGKSHFAIGLALYYPSARIYV TACSHA AVDALCEKALKYLPIDKCSRIIPARAR  
VECFDKFKVNSTLEQYVFCTVN ALPETTADI VVFDEISMATNYDLSV NVARLRAKHYV  
YIGDPAQLPAPRTLLTKTLEPEYFNSVCRLMKTIGPDMFLGTCRRCPAEIVDTVSAL  
VYDNKLKAHKDKSAQCFKMFYKGVI THDVSSAINRPQIGVVREFLTRNP AWRKAVFIS  
PYNSQNAVASKILGLPTQTV DSSQGSEYDYVIFTQTTEAHSCNVNRFNVAITRAKIG

FIGURE 34 (B)

ILCIMSDRDLYDKLQFTSLEIPRRNVATLQAENVTLKDCSKIITGLHPTQAPTHLS  
VDIKFKTEGLCVDPGIPKDMTYRRLISMGMFKMNYQVNGYPNMFITREEAIRHVRAW  
IGFDVEGCHATRDAVTNLPLQLGFSTGVNLAVPTGYVDTENNTEFTRVNAKPPGD  
QFKHLIPLMYKGLPWNVVRIKIVQMLSDTLKGLSDRVVFVLWAHGFELTSMKYFVKIG  
PERTCCLCDKRATCFSTSSDTYACWNHSVGFDYVYNPFMIDVQQWGFTGNLQSNHDQH  
CQVHGNAHVASCDAIMTRCLAVHECFVKRVDWSVEYPIIGDELRVNSACRKVQHMVVK  
SALLADKF PVLHDIGNPKAIKCVPAEVEWKFYDAQPCSDKAYKIEELFYSYATHHDK  
FTDGVCFLWNCNVDRYPANAIVCRFDTRVLSNLNLPGCDGGSLYVNKHAFHTPAFDKS  
AFTNLKQLPFFYYSDSPCESHGKQVVSIDYVPLKSATCITRCNLGGAVCRHHANEYR  
QYLDAYNMMISAGFSLWIYKQFDTYNLWNTFTRLQSLENVAYNVVNKGHFDGHAGEAP  
VSIINNAVYTKVDGIDVEIFENKTLPVNVAFELWAKRNIKPVPEIKILNNLGVDIAA  
NTVIWDYKREAPAHVSTIGVCTMTDIAKKPTESACSSLTVLFDGRVEGQVDLFRNARN  
GVLITEGSVKGLTPSKGPAQASVNGVTLIGESVKTQFNYFKKVDGIIQQLPETYFTQS  
RDLEDfkPRSQMETDFLELAMDEFIQRYKLEGYAFEHIVYGDFSHGQLGGLHLMIGLA  
KRSQDSPLKLEDFIPMDSTVKNYFITDAQTGSSKCVCSVIDLLLDDFVEIIKSQDLSV  
ISKVVKVTIDYAEISFMLWCKDGHVETFPKLQASQAWQPGVAMPNLYKMQRMLLEKC  
DLQNYGENAVIPKGIMMNVAKYTQLCQYLNTLTLAVPYNMRVIHFGAGSDKGVAPGTA  
VLRQWLPTGTLLVDSLNDVSDADSTLIGDCATVHTANKWDLIISDMYDPRTKHVTK  
ENDSKEGFFTYLCGFIKQKLALGGSIAVKITEHAWNADLYKLMGHFSWWTAFTNVNA  
SSSEAFLIGANYLGKPKEQIDGYTMHANYIFWRNTNPIQLSSYSLFDMSKFPLKLRGT  
AVMSLKENQINDMIYSLLEKGRLIIRENNRVVVSSDILVNN

FIGURE 35 (A)

MESLVLGVNEKTHVQLSLPVVLQVRDVLRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLPQEQQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGYIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRELNGGAVTRYVDNNFCGPDCYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP  
LNSKVVKVIQPRVEKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTFCGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIIVGDFHLNEEVAILLASFSASTSAFIDTIKSLDYKSFKTIVESCGN  
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIIRSIFARTLDAANHSIPDLQRAA  
VTILDGISEQSLRLVDAMVYTSDLTNSVIIMAYVTGGLVQQTSQWLSNLLGTTVEKL  
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV  
NKALEMCIDQVTIAGAKLRSNLGEVFIAQSKGLYRQCIRGKEQLQLLMPLKAPKEVT  
FLEGDSHDTVLTSEEVVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLLEIKDKEQ  
YCALSPLLATNNVFRLKGGAPIKGVTGEDTVWEVQGYKNVRITFELDERVDKVLNE  
KCSVYTVESGTEVTEFACVVAEAVVKTLPVSDLLTNMGIDLDEWSVATFYLFDDAGE  
ENFSSRMYCSFYPPDEEEEDDAECEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR  
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTNDNAIKCVDIVKEAQSA  
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL  
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQLQCVQQT  
VRTQVYIAVNDKALYEQVVMMDYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV  
KPKIKACIDEVTTLEETKFLTNKLLLFA DINGKLYHDSQNMLRGEDMSFLEKDAPYM  
VGDVITSGDITCVVIPSKKAGGTTEMLSRALKKVPDEYITTYPGQGCAGYTLLEEAKT  
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI  
QRKYKGIKIQEGIVDYGVRFYYTSKEPVASIITKLNSLNEPLVTMPIGYVTHGFNLE  
EAARCMRSLKAPAVVSVSSPD AVTTYNGYL TSSSKTSEEHF VETVSLAGSYRDWSYSG

FIGURE 35 (B)

QRTELGVFALKRGDKIVYHTLESPVEFHLDGEVLSLDKLKSLLSLREVKTIVFTTVD  
NTNLHTQLVDMMSMTYQQQFGPTYLDGADVTKIKPHVNHEGKTFVLPSSDTLRSEAFE  
YYHTLDESFLGRYMSALNHTKKWFQPVGGLTSIKWADNNCYLSSVLLALQQLEVKFN  
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHLLQHANLESAKRVLN  
VVCKHCGQKTTLTGVEAVMYMGTLSYDNLKTGVSIPCVCGRDATQYLVQQESSFVMM  
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPTD  
VFYKETSYTTIKPVSYKLDGVTYTEIEPKLDGYYKKDNAYYTEQPIDLVPTQPLPNA  
SFDFNFKLTCSNTKFADDLNQMTGFTKPASRELSVTFFPDNGDVVAIDYRHYSASFKK  
GAKLLHKPIVWHINQATTKTFKPNTWCLRCLWSTKPVDTNSFEVLAVEDTQGMDNL  
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVGNVILKPSDEGVKVTQELGHEDLMA  
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN  
CAKRLAQRFNFNNYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIAKNSVKSVALCLDA  
GINYVKSPKFSKLFITIAMWLLLLSICLGSPLICVTAAGVLLSNFGAPSYCNGVRELYL  
NSSNVTTMDFCEGSFPSICLSGLDSLDSYPALETIQVTISSYKLDLTIILGLAAEWVL  
AYMLFTKFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF  
ASFYYIWKSYVHIMDGCTSSTCMMCYKRNRATRVECTTIVNGMKRSFYVYANGGRGFC  
KTHNWNCNCDFCTGSTFISDEVARDLSQLFKRPINPTDQSSYIVDSAVKNGALHL  
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGSLPININVFDGKSKCDESASKSASVYY  
SQLMCQPILLLQALVSDVGDSTEVSVMFDAYVDTFSATFSVPMEKLKALVATAHSE  
LAKGVALDGVLSTFVSAARQGVVDTDVDTKDVIECLKLSHSDLEVTGDSCNNFMLTY  
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNVKDYMMSLSEQLRKQIRSAAKK  
NNIPFRLTCATTRQVVNVITTKISLKGKIVSTCFKMLKATLLCVLAALVCYIVMPV  
HTLSIHGYTNEIIGYKAIQDGVRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC  
PVVAAITREIGFIVPGLPGTVLRAINGDFLHFLPRVFSAVGNICYTPSKLIEYSDFA  
TSACVLAECTIFKDAMGKPVPCYDTNLLEGSISYSELRPDTRYVLMGSIIQFPNT  
YLEGSVRVVTTFDAEYCRHGTGERSEVGICLSTSGRWVLNNEHYRALSGVFCGVDMN

FIGURE 35 (C)

LIANIFTPLVQPVGALDVSASVVAGGIIAILVTCAAYYFMKFRRAFGEYNHVVAANAL  
LFLMSFTILCLAPAYSFLPGVYSFYLYLTFTNDVSFLAHLQWFAMFSPIVPFWIT  
AIYVFCISLKCHWFFNNYLRKRVMFNGVTFSTFEEAALCTFLLNKEMYLKLRLSETLL  
PLTQYNRYLALYNKYKYFSGALDTTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI  
TSAVLQSGFRKMAFPSKGVEGCMVQVTCGTTLNGLWLDDTVYCPRHVICTAEDMLNP  
NYEDLLIRKSNSHSFLVQAGNVQLRVIGHSMQNCLLRLKVDTSNPKTPKYKFVRIQPGQ  
TFSVLACYNGSPSGVYQCAMPNHTIKGSFLNGSCGSGFNIDYDCVSFCYMHHMELP  
TGVHAGTDLEGKFYGPVDRQTAQAAGTDTTITLNVLAWLWAAVINGDRWFLNRFTTT  
LNDFNLVAMKYNYEPLTQDHVDILGPLSAQTGIAVLDMAALKELLQNGMNGRTILGS  
TILEDEFTPFDVVRQCSGVTFQGKFKKIVKGTHHWMLLTFLTSLLILVQSTQWSLFFF  
VYENAFLPFTLGIMAIAACAMLLVKHKHAFLCLFLPSLATVAYFNMVYMPASWVMRI  
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLMNVITLVYKV  
YYGNALDQAIISMWALVISVTSNYSGVVTTIMFLARAIVFVCVEYYPLLFITGNTLQCI  
MLVYCFGLGYCCCCYFGLFCLLNRYFRLTLGVYDYLVSTQEFRYMSQGLLPPKSSIDA  
FKLNIKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH  
NDILLAKDTTEAFEKMSLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS  
YAAYATAQEAYEQAVANGDSEVVLKKLKSLNVAKSEFDRDAAMQRKLEKMDQAMTQ  
MYKQARSEDKRAKVTSAMQTMLFTMLRKLDNDALNNIINNARDGCVPLNIIPLTAAK  
LMVVVPDYGTYKNTCDGNTFTYASALWEIQQVVDADSKIVQLSEINMDNSPNLAWPLI  
VTALRANSAVKLQNNELSPVALRQMSCAAGTTQACTDDNALAYYNNSKGGRFVLALL  
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGNNLNRGMV  
GSLAATVRLQAGNATEVPANSTVLSFCAFADPAKAYKDYLASGGQPITNCVKMLCTH  
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND  
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFLNRVCVSAARLTPCGTG  
TSTDVVYRAFDIYNEKVAGFAKFLKTNCRFQEKEDEEGNLLDSYFVVKRHTMSNYQHE  
ETIYNLVKDCPAVAVHDFFKFRVDGDMVPHISRQRLTKYTADLVYALRHFDEGNCDT

FIGURE 35 (D)

LKEILVTYNCCDDDYFNKKDWYDFVENPDILRVYANLGERVRQSLLKTVQFCDA  
GIVGVLTLDNQDLNGNWYDFGDFVQVAPCGVPIVDSYSSLMPILTTLA  
DADLAKPLIKWDLLKYDFTEERLCLFDTRYFKYWDQTYHPNCINCLDDRCILH  
CANFNVLFSTVFPPTSFGPLVRKIFVDGVPVVSTGYHFRELGVHNQDVNLHSSR  
LSFKELLVYAADPAMHAASGNLLLKDRTTCSVAALTNNVA  
FQTVKPGNFNKDFYDFAVSKGFFKE  
GSSVELKHFFAQDGNAIASDYDYYRYNLPTMCDIRQLLFVVEVVDKYFDCYDGGC  
INANQVIVNNLDKSAGFPFNKGKARLYYDSMSYEDQDALFAYTKRNVIPTITQMNL  
KYAISAKNRARTVAGVSICSTMNRQFHQKLLKSIAATRGATVVIGTSKFYGGWH  
NMLKTVYSDVETPHLMGWDYPKCDRAMPNMLRIMASLVLARKHNTCCNL  
SHRFYRLANECAQVLSEMVMCGGS  
LYVKPGGTSSGDATTAYANSV  
NICQAVTANVNALLSTDGNI  
ADKYVRNLQHRLYECLYRN  
RDVDHEFVDEFYAYLRKH  
FSMMILSDDAVVC  
YNSNYAAQGLV  
ASIKNFKA  
VLYYQNNV  
FMSEAKCW  
TETDLTKGP  
HEFCSQHT  
MLVKQGDDYV  
YLPYPD  
PSRI  
LGAGCFV  
DDIVKT  
DGTLMI  
ERFVSL  
AIDAYPL  
TKHPNQEY  
ADV  
FHLYLQY  
IRKLH  
DEL  
TGHM  
LDMYSV  
MLTN  
DNTSRY  
WEPE  
FYEAMY  
TPHT  
VLQAVG  
ACVLC  
NSQTSL  
RCGAC  
IRRP  
FLCCK  
CYDH  
VISTSH  
KLVLSV  
NPYVC  
NAPGCD  
VTDTV  
TQLYL  
GGMSYY  
CKSH  
KPPISF  
PLCANG  
QVFGLY  
KNTCV  
GSDN  
VTD  
FNIA  
ATCDW  
TNAGDY  
YLANT  
CTERLK  
LFAAET  
LKATEET  
FKLSYGI  
ATV  
REV  
LSD  
REL  
HL  
SWEVG  
KPR  
PLNR  
NYVFT  
GYR  
VTK  
NSKV  
QI  
GEYTF  
EKGDY  
GDAV  
VYRG  
TTYKLN  
VGDY  
FV  
LTS  
HTV  
MPLS  
APT  
LVP  
QE  
HYVR  
ITGLY  
PTLN  
ISDEF  
SSNV  
ANYQ  
KVG  
MQKY  
STLQ  
GPPGT  
GKSH  
FAIG  
LAL  
YYP  
SARI  
VYT  
ACSH  
AAVD  
DALCE  
KALKY  
LPID  
KCSRI  
IIPAR  
ARVE  
CFDK  
FKVN  
NSTLE  
QYVF  
CTVN  
NALP  
ETTAD  
IVVF  
DEISM  
ATNYD  
LSVV  
NARL  
RAK  
HYV  
YIG  
DPA  
QLP  
APR  
TLL  
KG  
TLE  
PEY  
FNS  
VCR  
LMKT  
IGP  
DMFL  
GT  
CRR  
CPAE  
IV  
DTV  
SALV  
YDN  
KL  
KA  
HKE  
KSA  
QCF  
KM  
FY  
KG  
V  
ITH  
DVS  
SAIN  
RPQI  
GV  
V  
REF  
L  
TRN  
PAWR  
KAVF  
ISP  
YNS  
QNAV  
ASK  
KIL  
GLP  
TQ  
VD  
SS  
SQ  
GSE  
YDY  
VI  
FT  
QT  
TEAH  
SC  
NV  
RF  
NVA  
IT  
RAK  
IG  
ILC  
IMS  
DRD  
LY  
DKL  
QFT  
SLE  
I  
PR  
RN  
VAT  
LQ  
AEN  
VT  
GLF  
KDC  
SKI  
I  
TGL  
HPT  
QAP  
THL  
SV  
DI  
FK  
TE  
GL  
CVD  
I  
PG  
I  
PK  
DM  
TY  
RRL  
I  
SMM  
GFK  
MNY  
QV  
NGY  
PNM  
FIT  
REE  
AIR  
HV  
RAW  
IG  
FD  
VEG  
CHAT  
RDA  
VGT  
NL  
PL  
QLG  
FST  
GVN

FIGURE 35 (E)

LVAVPTGYVDTENNTEFTRVNAKPPPGDQFKHLIPLMYKGLPWNVVRIKIVQMLSDTL  
KGLSDRVVFVLWAHGFELTSMKYFVKIGPERTCCLCDKRATCFSTSSDTYACWNHSVG  
FDYVYNPFMIDVQQWGFTGNLQSNHDQHCQVHGNAHVASCDAIMTRCLAVHECFVKRV  
DWSVEYPIIGDELRVNSACRKVQHMVVKSALLADKFVPLHDIGNPKAIKCVPQAEVEW  
KFYDAQPCSDKAYKIEELFYSYATHHDKFTDGVCFLFWNCNDRYPANAIVCRFDTRVL  
SNLNLPGCDGGSLYVNKHAFHTPAFDKSAFTNLKQLPFFYYSDSPCESHGKQVVSDID  
YVPLKSATCITRCNLGGAVCRHHANEYRQYLDAYNMMISAGFSLWIYKQFDTYNLWNT  
FTRLQSLENVAYNVVNKGHF DGHAGEAPVSIINNAVYTKVDGIDVEIFENKTTLPVNV  
AFELWAKRNIKPVPEIKILNNLGVDIAANTVIWDYKREAPAHVSTIGVCTMTDIAKKP  
TESACSSLTVLFDGRVEGVQVDFRNARNGVLITEGSVKGLTPSKGPQAQASVNGVTLIG  
ESVKTQFNYFKKVDGIIQQLPETYFTQSRDLEDKPRSQMETFLELAMDEFIQRYKL  
EGYAFEHIVYGDFSHGQLGLHLMIGLAKRSQDSPLKLEDFIPMDSTVKNYFITDAQT  
GSSKCVCVIDLLLDDFVEIIKSQDLSVISKVVKVTIDYAEISFMLWCKDGHVETFYP  
KLQASQAWQPGVAMPNLYKMQRMLLEKCDLQNYGENAVIPKGIMMNVAKYTQLCQYLN  
TTLAVPYNMRFVIHFGAGSDKGVAPGTAVLRQWLPTGTLVDSLNDVSDADSTLIG  
DCATVHTANKWDLIISDMYDPRTKHVTKEKENDSKEGFFTYLCGFIKQKLALGGSIAVKI  
TEHSWNADLYKLMGHFSWWTAFTVNViNASSEAFLIGANYLGKPKEQIDGYTMHANYI  
FWRNTNPIQLSSYSLFDMSKFPLKLRGTAVMSLKENQINDMIYSLLEKGRLIIRENNR  
VVVSSDILVNN

**FIGURE 36**

KSFKTIVESCGNYKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQA  
AGVIRSIFARTLDAANHSIPDLQRAAVTILDGISEQLRLVDAMVYTS DLLTNSVIIM  
AYVTGGLVQQTSQWLSNLLGTTVEKLPIFEWIEAKLSAGVEFLKDAWEILKFITGV  
FDIVKGQIQVASDNIKDCVKCFIDVVNKALEMCIDQVTIAGAKLRSLNLEVFIAQSK  
GLYRQCIRGKEQLQLLMPLKAPKEVTFLEGDSHDTVLTSEEVVLKNGELEALETPVDS  
FTNGAIVGTPVCVNGLMLLEIKDKEQYCALSPGLLATNNVFRKGAPIKGVTFGEDT  
VWEVQGYKNVRITFELDERVDKVLNEKCSVYTVESGTEVTEFACVVAEAVVKTLPVS  
DLLTNMGIDLDEWSVATFYLFDAGEENFSSRMYCSFYPPDEEEEDDAECEEEEIDET  
CEHEYGTEDDYQGLPLEFGASAETVRVEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVN  
QFTGYLKLTDNVAIKCVDTVKEAQSANPMVIWNAANIHLKHGGVAGALNKATNGAMQ  
KESDDYIKLNGPLTVGGSCLLSGHNLAKKCLHVVGPNLNAGEDIQLLKAAYENFNSQD  
ILLAPLLSAGIFGAKPLQSLQVCVQTVRTQVYIAVNDKALYEQVVMMDYLDNLKPRVEA  
PKQEEPPNTEDSKTEEKSVVQKPVDVKPKIKACIDEVTTLEETKFLTNKLLL FADIN  
GKLYHDSQNMLRGEDMSFLEEDAPYMVGDVITS GDITCVVIPSKKAGGTTEMLS RALK  
KVPVDEYITTYPGQGCAGY TLEEAKTALKCKSAFYVLPSEAPNAKEEILGTVSWNLR  
EMLAHAAEARKLMPICMDVRAIMATIQRKYKGVKIQEGIVDYGVRF FFYTSKEPVASI  
ITKLNSLNEPLVTMPIGYVTHGFNLEEAARCMRSLKAPAVSVSSPDAVTTYNGY LTS  
SSKTSEEHFVETVSLAGSYRDWSYSQQRTELGVFLKRGDKIVYHTLES PVEFHLDGE  
VLSLDKLKSLLSLREVKTIVF TTDNTNLHTQLVDMMSMTY GQQFGPTYLDGADVTKI  
KPHVNHEGKTFFVLPSSDTLRSEAF EYYHTLDESFLGRYMSALNHTKKWF PQVGGLT  
SIKWADNNCYLSSVLLALQQLEVKF NAPALQE

**FIGURE 37**

KSFKTIVESCGNYKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQA  
AGVIRSIFARTLDAANHSIPDLQRAAVTILDGISEQSLRLVDAMVYTS DLLTNSVIIM  
AYVTGGLVQQTSQWLSNLLGTTVEKLPIFEWIEAKLSAGVEFLKDAWEILKFLITGV  
FDIVKGQIQVASDNIKDCVKCFIDVVNKALEMCIDQVTIAGAKLRSLNLEVFIAQSK  
GLYRQCIRGKEQLQLLMPLKAPKEVTFLEGDSHDTVLTSEEVVLKNGELEALETPVDS  
FTNGAIVGTPVCVNGLMLLEIKDKEQYCALSPGLLATNNVFRKGAPIKGVTFGEDT  
VWEVQGYKNVRITFELDERVDKVLNEKCSVYTVESGTEVTEFACVVAEAVVKTLPVS  
DLLTNMGIDLDEWSVATFYLFDDAGEENFSSRMYCSFYPPDEEEEDDAECEEEEIDET  
CEHEYGTEDDYQGLPLEFGASAETVRVEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVN  
QFTGYLKLTDNVAIKCVDTVKEAQSANPMIVNAANIHLKHGGVAGALNKATNGAMQ  
KESDDYIKLNGPLTVGGSCLLSGHNLAKKCLHVVGPNLNAGEDIQLLKAAYENFNSQD  
ILLAPLLSAGIFGAKPLQSLQCVQTVRTQVYIAVNDKALYEQVVMMDYLDNLKPRVEA  
PKQEEPPNTEDSKTEEKSVVQKPVDVKPKIKACIDEVTTLEETKFLTNKLLL FADIN  
GKLYHDSQNMLRGEDMSFLEEDAPYMVGDVITSGDITCVVIPSKKAGGTTEMLS RALK  
KVPVDEYITTYPGQGCAGY TLEEAKTALKCKSAFYVLPSEAPNAKEEILGTVSWNLR  
EMLAHAEARKLMPICMDVRAIMATIQRKYKGVKIQEGIVDYGVRFYTSKEPVASI  
ITKLNSLNEPLVTMPIGYVTHGFNLEEAARCMRSLKAPAVSVSSPDAVTTYNGY LTS  
SSKTSEEHFVETVSLAGSYRDWSYSQRT ELGVEFLKRGDKIVYHTLES PVEFHLDGE  
VLSLDKLKSLLSLREVKTIVFTTDNTNLHTQLVDMMSMTYGQQFGPTYLDGADVTKI  
KPHVNHEGKTFFVLPSSDTLRSEAF EYYHTLDESFLGRYMSALNHTKKWF PQVGGLT  
SIKWADNNCYLSSVLLALQQLEVKF NAPALQE

**FIGURE 38**

MESLVLGVNEKTHVQLSLPVLQVRDVLRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLQPQEQQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRLNGGVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSCEHQTPEIKAFFDTFKGECPKFVFP  
LNSKVVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTFCGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESCG

**FIGURE 39**

MESLVLGVNEKTHVQLSLPVLQVRDVLRGFGDSVEEALSEARE  
HLKNGTCGLVELEKGVLQPQEOPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI  
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN  
WNTKHGSGALRELTRLNGGVVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ  
LDYIESKRGVYCCRDHEHEIAWFTERSDKSCEHQTPEIKAFFKGECPKFVFP  
LNSKVVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC  
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN  
IETRLRKGGRTRCFGGCVFAYVGCKRAYWVPRASADIGSGHTGITGDNVETLNEDL  
LEILSRERVNINIVGDFHLNEEVAILLASFSASTSAFIDTIKSLSDYKSFKTIVESCG

**FIGURE 40**

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNNGGRNGARPQKQR  
GLPNNTASWFTALTQHGKEELRFPRGQGVINTNSGPDDQIGYYRRATRRV  
RGDGKM  
KELSPRWYFYLGTPPEASLPYGANKEGIVWVATEGALNTPKDHIGHTRNP  
NNNAATVL  
QLPQGTTLPKGFYAEGSRGGSQASSRSSRSRGNSRNSTPGSSRGNSPAR  
MASGGGET  
ALALLLLDRLNQLESKVSGKGQQQQGQTVKSAEASKPRQKRTATQYNVT  
QAFG  
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEV  
TPSGTWLTY  
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPL  
PQRQKKQPT  
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 41

MFIFLLFLTLTSGSDLRCTTFDDVQAPNYTQHTSSMRGVYYPD  
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFDNPVIPFKDGIYFAATEKSNVVRGWV  
FGSTMNNKSQS VII INNSTNVVIRACNFELCDNPFFAVSKPMGTQTHMIFDNAFNCT  
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFPLYVYKGYQPIDVVRDLPSGFNTLKP  
IFKLPLGINITNFRAILTAFSPAQDTWGTSAAYFVGYLKPTTFMLKYDENGTTDAV  
DCSQNPLAELKCSVKSFEIDKGIYQTSNFRVVPSGDVVRFPNITNLCPFGEVFNATKF  
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD  
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTRNI DATSTGNYNKYRYLRHGKL RP  
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTGIGYQPYRVVVL SFELLNAPA  
TVCGPKLSTDLIKNQCVNFNFNGLTGTGVLT PSSKRFQPFQQFGRDVS DFTDSVRDPK  
TSEILDISPCSF GGVSITPGTNASSEAVLYQDVNCTDVSTA I HADQLTPAWRIYST  
GNNVFQTQAGCLIGAEHVDTSYECDIPIGAGICASYHTV SLLRSTS QKSIVAYTMSLG  
ADSSIAYSNN TIAI PTNFSISITTEVMPV SMAKTS VDCN MYIC GDSTECAN LLLQYGS  
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLK YFGGF NFSQ ILPDPLKPTKRS  
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLT VLPPLL TD MIAAYT  
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS  
QIQESLTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRLDKVEAE  
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVD FCGKG YH  
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAI C HEGKAYFPREGVFVFN GTSWF ITQ  
RNFFSPQI ITTDNTFVSGNCVVIGI INNTVYDPLQPELDSFKEELDKYFKNHTSPDV  
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA  
GLIAIVMV TILLCCMTSCSCLKGACSCGSCCKFDEDDSEPVLKGVLHYT